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LOWER SALMON RIVER INTERPRETIVE PLAN



U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



COEUR D'ALENE DISTRICT

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BUREAU OF LAND MANAGEMENT
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To: All State Directors, Except ESO

From: Director

Subject: Lower Salmon River Interpretive Plan

Providing more and better information to Public Lands Users is a key provision of both our Project Pride and our Recreation 2000 initiatives. The attached Lower Salmon River Interpretive Plan is a working example of a framework designed to help get our message across.

Interpretive planning is relatively new in the Bureau of Land Management. As recreation use of public lands continues to increase, information/education is an important management tool in protecting the resource from abuse, overuse, and in enhancing the visitor's experience. A systematic approach to define both the audience and the type of information which needs to be disseminated will help ensure that our efforts are not misdirected. The Lower Salmon River Plan is a good example of this approach, and can be used as a model for interpretive planning efforts.

We encourage you to distribute this to field offices for their use. Additional copies of the plan are available from George Werskircher on FTS 8-554-1748 in the Idaho State Office, upon request.

Frank W. Snell
Chief, Division of Recreation, Cultural,
and Wilderness Resources

- 1 Attachment (to addresses only)
1 - Booklet Lower Salmon River
Interpretive Plan (61 pgs)

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INTERPRETIVE PLAN
FOR THE LOWER SALMON RIVER RECREATION AREA

Bureau of Land Management
Cottonwood Resource Area
Coeur d'Alene District
Idaho

A Cooperative Effort between
the University of Idaho
Department of Wildland Recreation Management
and the
Bureau of Land Management

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INTRODUCTION

1

This document is intended to provide guidance and framework for a comprehensive interpretive and public information effort for the Bureau of Land Management of the Cottonwood Resource Area. The plan will primarily focus on the recreational aspects, opportunities, and management concerns involving the Lower Salmon River Area. As a multiple use agency, the BLM wishes to provide a continued flow of quality recreational experiences while maintaining the quality and protecting the characteristics of the recreation resource itself.

The interpretive planning process used in the formulation of this plan was developed, adapted and modified by Dr. Sam Ham of the University of Idaho (Enriquez, 1987). The purpose of the plan is to provide recommendations for topic selection, message content, and media opportunities based on resource potential, management needs and audience analysis. The basic process involves a logical sequence of steps working from policy level goals to theme suggestions based on management objectives. It is assumed that a comprehensive interpretive program should help produce or reinforce desirable attitudes and behavior among visiting recreationists as has been proven in numerous studies (Freed, 1981; Cherem, 1981; Harrison, 1982). The interpretive program should also offer interesting and enlightening information to the public and promote increased recognition of the different values of the Lower Salmon River area. Therefore, the intended results of the interpretive effort are two fold. 1. Primarily it will be designed to indirectly and cost effectively reduce impacts caused by users to the resource and, subsequently, reduce the degradation of the recreation experience. 2. It is also intended to enhance visitor experiences through revealing information concerning the total environment within which they are involved.

In addition to the basic policy in BLM Manual Section 8360.06, the BLM offers the following policy level goals and guidelines for interpretive services:

- A. To meet management objectives identified in Bureau planning documents;
- B. To improve public involvement in the decisionmaking process by using public land resources and programs for managing them to promote an understanding of and sensitivity to BLM's multiple use management role. The focus here is to help visitors comprehend the rationale that guides public land management rather than trying to sell BLM's management decisions.
- C. To protect both visitors and resources by developing user awareness of (1) public land hazards, (2) how users affect various natural or cultural resources,, and (3) how users affect each other. This is accomplished using communications techniques geared toward specific types of uses and users, going beyond information giving to interpretation.
- D. Complying with Federal, State, and local accessibility standards, when appropriate, for the handicapped.
- E. Using regular and professional evaluation to determine their effectiveness.

INTERPRETIVE INVENTORY AND AREA OVERVIEW

Resource information and area descriptions:

The interpretive plan will utilize the informative and well presented biophysical, geologic and cultural descriptions of the LSR contained in the area's Cultural Plan, River Management plan, early river Wild and Scenic studies, natural resource inventories. Area descriptions of flora, fauna, geology, human history are well documented in those manuscripts. Any specific interpretive or informational efforts implemented as suggested by this plan should refer to the technical information contained in those documents. As staff review the interpretive plan, additional anecdotes, points of interest, special area characteristics may be identified and added to the inventory.

In addition, the inventory section will analyze the various audience groups and populations that utilize the LSR area. This will assist the recreation management personnel in choosing the most appropriate information and medium for interpretive programming designed specifically for each user group or audience. The inventory will also consider existing interpretive efforts currently being employed by this and other agencies. This will reduce duplicity of effort and lead to designing interpretation that will augment current programs or messages. The inventory will assist in the integration and coordination of interpretive efforts with other agencies and regional programming.

INTERPRETIVE INVENTORY

AUDIENCE ANALYSIS; SUMMARY OF VISITOR DEMOGRAPHICS, USE LEVELS, AND RECREATIONAL PREFERENCES:

According to data collected from 1979 to 1986, there are three distinct use seasons in the Lower Salmon River area. Summer, Fall, and Winter/Spring seasons each offer different recreation opportunities to visitors. This annual "use cycle" results in a predictable change in audience and thus differing management objectives and delivery of the interpretive program.

Summer use (June 15 to September 15) results in the vast majority of estimated user days. Approximately 190,000 visitors utilize the 60 mile stretch of river canyon from Vinegar Creek to Hammer Creek each summer. Nearly 64,000 of these people stay at least one night within the highway/river use corridors. The majority of the visitors are from Idaho (48%), with the remainder primarily coming from the western U.S. and Canada (Rawhauser, 1986). Relaxing, viewing scenery and observing wildlife were primary motivations identified by users during all seasons. River floating (rafts and kayaks), jetboating, swimming, fishing, camping and picnicking are all important activities during the summer. It is estimated that a significant number of summer visitors are tourists on their way to other destinations. These highway users tend to frequent the rest areas and make periodic stops to enjoy the view, stretch their legs, and observe wayside signs and interpretive media (Field & Wagar, 1973). University of Idaho surveys during the summer of 1986 show that the majority of Idaho tourists camp during their summer visits and that highway 95 through the LSR area is one of the more heavily traveled corridors in the state. This situation provides the BLM with an exceptional opportunity to contact large numbers of recreationists, tourists, and travelers to provide them with recreational and interpretive information.

Summer is also the prime use season for the Salmon River below Hammer Creek. Multi-day (average 4 days) float trips, both commercial and noncommercial, account for the majority of use on this more pristine section of river. Approximately 2,800 visitors (11,500 total user days, with 50% being commercial use) utilized this section of river in 1981. The use during 1985 increased substantially to 2200 commercial and 3,000 noncommercial multi-day users (approximately 20,000 user days, a ten-fold increase over 1975 levels). Much more is known about this population of river users. Detailed demographics were collected between 1977-1981 and overnight river use statistics have been compiled annually since 1972 (see Lower Salmon River Management Plan and annual use statistics).

Fall season use, September 15 to December 31, reflects the annual pilgrimage to the area by both fishermen and hunters. The yearly migration of anadromous fishes (Steelhead trout primarily) and the various hunting opportunities/seasons drew over 38,000 weekend visitors in 1986. Over 70% of the 1986 fall visitors responded that fishing was their primary motivation/ activity (Rawhauser, 1986). In addition, fall Chukar and Mule deer hunting are also very popular in both road and river accessible areas. Predictably, most of these fall visitors are from Idaho (79%) and the neighboring states of Washington (7%) and California (5%).

Winter/spring use occurs mainly on weekends with 36,000 visitors estimated between January 1 and June 15, 1986. Overall percentage use by Idaho residents increases to over 90% during this time period with slightly more than 8% coming from Washington. Fishing for Steelhead remains an important recreational activity during this season, but to a much lesser degree than the fall. Day use and picnicking become important activities with many nearby residents seeking snow free and warmer areas to enjoy. Early spring float trips are also popular as this section of river affords a longer, warmer boating season as well as easy year round access and runnable flows. However, high spring flows and severe whitewater cause a considerable reduction in float and jetboat use on the lower section of the river usually in May and June.

Day use in both water and shore based activities seems to be increasing at a faster rate than overnight use. Over a hundred people have been observed using Skookumchuck Recreation site alone on a sunny summer weekend day. This seems to reflect the growing popularity of beaches for swimming and picnicking during summer weekends. Use of the river for daily float trips, primarily in the Riggins area and the Hammer Creek to Pine Bar sections, has seen substantial increases in the past few years. Nearly 4,700 commercial one-day passengers were recorded during the 1985 river season for these sections with the vast majority (83%) of use between Long Tom Bar and Hammer Creek. This reflects a seventy percent increase in the number of trips over the previous year.

Average group size is five persons for all three use seasons in the upper section of the management area, with the most common group size being two. Area recreationists stayed an average of 59 hours in the summer, 88 hours in the fall and 31 hours in the winter/spring. The most common length of stay was an even two days (Rawhauser, 1986). Although, nearly a third of all visitors are visiting the resource for the first time, most of the users were repeat visitors, some even utilizing the area 6 to 10 days or more each year.

SUMMARIES OF AUDIENCE GROUPS AND POSSIBLE INTERPRETIVE NEEDS ACCORDING TO RECREATION ACTIVITY, AUDIENCE ANALYSIS, AND MANAGEMENT OBSERVATIONS:

These general observations and management concerns for all populations include minimum impact use information, visitor orientation, conflict mitigation measures, and general cultural and natural resource awareness. Special concerns and interests are noted for each population.

FLOATERS:

This user group has been studied at length. These recreationists can be subdivided into two basic categories, commercial and non-commercial. Generally their demographics show that they are young, 25 to 45 years, relatively affluent and highly educated. (However, the 1979 statistics may have been biased as many local and regional users refused to take part in the survey (Grussing, personal communication 7/6/87). This information may also imply a need for a new, more accurate survey.) They utilize rafts, drift boats, and kayaks. The average party size for both groups is approximately eight to nine persons excluding commercial boatmen. Most non-commercial river runners have historically come from the Northwest, primarily Idaho, Washington, California, Oregon and Montana. It is assumed that commercial river clients come from an even wider geographical area. However, user trends may be changing as non-permitted rivers are rare, especially those that have an extended use season, thus drawing use to the Lower Salmon from a larger geographic area. Due to its relatively convenient accessibility and easy to moderate navigable waters, the LSR is considered one of the few remaining whitewater rivers open and available to local residents, family groups and novice river runners. These aspects will only add to the river's future popularity and the subsequent complex recreation management needs. It must also be noted that river use in the LSR is increasing at about 20% a year as river running, in general, increases in popularity. Commercial use is not growing as quickly as non-commercial use. The majority of the users, since 1984, have been non-commercial.

Apparent User Interests: Based on frequency and type of inquiries made to river managing agencies and personnel, floaters are primarily concerned with river flow information; annual and record high/low flows; dangerous water levels and significant rapids; river lore and history; orientation, access, and points of interest; good camping areas; casual interest in natural history and geology.

Management Concerns: User impacts, specifically human waste, and trash and ash/charcoal carryout. Management is also interested in mitigating conflicts between different river user groups, specifically between jetboaters and floaters; promoting an understanding of managements concerns and enlisting cooperation to maintain the resources without imposing additional permits, regulations or enforcement. Commercial outfitters have been generally more conscientious in their minimum impact efforts. This is due in part to operational requirements made by the BLM and other agencies where the outfitters may hold permits. It is assumed by management that interpretive messages most often are not communicated to non-commercial parties as private groups of river runners do not always contact the BLM and are more often found to be unaware of regulations or recommendations than commercial outfitters.

JETBOATERS and motorized day users:

There is little data available concerning jetboater demographics and interests. However, it is believed by area management that most are local or regional residents. Jetboat users do not regularly use the lower river section during periods of low water. They tend to utilize ramps at a variety of locations on the upper river for day trips or come up the Salmon from Snake River access points during moderate flow periods. It is assumed that many jetboat users are paying commercial clients primarily interested in fishing, as are the non-commercial users. While the majority of jetboat enthusiasts use the river primarily on a day use basis, their impact is thought to be significant as beaches are utilized for lunches and rest stops. A number of jetboat outfitters will operate multiple day base camps, especially during fishing season, generating a moderate amount of degradation at specific high use sites. Non-commercial overnight use is concentrated in the same areas, (a few miles below Hammer Creek and above the confluence with the Snake) and it is believed that the majority of these users are not prepared to carry out human waste.

Apparent User Interests: Fishing; general information as access points, orientation to area, launch ramp congestion, camp sites and facilities, safety and hazards, river flows, and casual interests in cultural and natural history.

Management Concerns: Conflicts with floaters; compliance with minimum impact standards; launch ramp congestion; river safety.

FISHERMEN:

The vast majority of this group comes from local areas. There is no data available as to occupation, education or interpretive interests, although it may be assumed that this group lives, for the most part, in the local or regional area. Therefore, off site interpretive approaches may prove to be more effective in communicating themes. The fishermen can be generally categorized into three separate populations: bank, motorized boat, and non-motorized boat fishermen. Each cause similar impacts but require varying interpretive delivery, as they access the river at different points and have different use concerns. Management feels that the majority of resource impacts (human waste and trash) are caused by the hunting/fishing user group as significant and noticeable increases in impacts are documented in the fall. This is due, in part, to the longer average length of stay and larger group size average of this population. However, this population does not cause the majority of impacts during other use seasons. It is also generally assumed that a great deal of the user impacts such as trash and vandalism can be attributed to casual day use (or short term visits) by local residents (Harrison, 1982) who may or may not be there to fish but tend to utilize the same sites and are also not prepared or encouraged to "pack-out" their trash. In addition, environmental and social impacts are more significant in areas of easy road access and that are often used by day use visitors.

Apparent User Interests: Campsite location and access to the river; river ecosystem (fish populations, habits and habitat); fish identification and species; regulations and seasons.

Management Concerns: Compliance with state fish and game requirements; congestion and overuse; heavy impacts at sites accessible by vehicle; conflicts with private land owners.

DAY USERS AND PICNICKERS:

The 1986 (Rawhauser) research suggested that these recreationists are for the most part local and repeat users. Family and peer groups are believed to be representative of this population, although data on this is inconclusive. Holiday and summer season weekend use is the highest with warm spring and fall weekend use being significant. Day users tend to visit developed facilities and beach access sites. Impact is significant especially in the form of trash and charcoal, even at sites with facilities and dumpsters.

Apparent User Interests: General orientation and access information; facility maintenance and development; swimming and road safety.

Management Concerns: Responsible use and ethics should be promoted; vandalism and nuisance acts need to be reduced, although it is not yet a major problem; inform this user group of recreation opportunities, cooperative maintenance needs, and the unique and

valuable natural/cultural resources of the area; river safety, swimming and environmental hazard warning and precautions.

RECREATIONAL GOLD MINERS/DREDGERS:

While this population is not believed to be significant in number, they have the potential to contribute significantly to environmental and recreation impacts. Recreational dredging permits are issued by the Idaho Department of Water Resources for the LSR. As a recreation pastime, gold panning and dredging along several western rivers has become quite popular and with the continuing increase in the value of gold, the numbers of recreational miners will undoubtedly increase. Recreational miners utilize numerous river campsites between Carey Creek and Hammer Creek for days, weekends and even weeks throughout the summer and early fall. Human waste and trash facilities are not provided at many of these campsites.

Apparent User Interests: Location of public and private lands, federal leases and other mining claims; accessible mining areas and nearby campsites; historic mining areas/techniques and regional mining/cultural history;

Management Concerns: Proper compliance with state and federal regulations; minimum impact mining and camping techniques; potential conflicts with other miners and recreationists; proper audio muffling, fire and refueling considerations and techniques for gasoline engines;

HIGHWAY TRAVELERS:

This population utilizes the pull outs, campgrounds, and rest areas along the highway portion of the area. (Include Harris research data and visitor demographics) It is believed that many of these travelers are family or retired couples. Research indicates that while their visits are generally short, retirees tend to appreciate interpretive waysides and orientation information and spend more time attending interpretive facilities (Bultena, Field, and Renniger, 1977). The register at Skookumchuk Recreation Site shows that a significant number of highway travelers use the area for picnicking and swimming. It also should be noted that many of the registrants are suprised to discover that the BLM manages the area and their comments reflect positive attitude toward the facilities and recreation opportunities available.

Apparent User Interests: General interpretation, points of interest, and area facilities location; recreational opportunities.

Management Concerns: Promotion of agency policies, regulations, and image is a priority; visitor orientation and recreation opportunities; resource values and uses; highway safety.

RIVER RECREATION DAY USERS:

The number of one-day river trips is growing dramatically. Commercial one-day float and jetboat trips have shown a documented 70% increase between 1984 and 1985 use levels. Most (83%) of one-day trips took place on the Long Tom Bar to Hammer Creek section of river. The vast majority of this use group are commercial clients. Non-commercial day use does occur. It is believed that non-commercial river day use is also growing rapidly, however, little data is available on this user group. This "backyard river" is very popular for short overnight use by regional and local residents and their day use will likely increase. As local promotion activities by area outfitters and businesses increase so will the number of commercial clients. Day use is currently being drawn from as far away as Boise and Spokane. Use is concentrated in the Riggins area of the river and peaks predictably on weekends and holidays.

Apparent User Interests: Access and facility location, flows and hazards, and general natural and cultural information.

Management Concerns: Launch and boat ramp congestion, user conflicts, and resource protection.

Other groups:

An additional resource user group, that is not generally recognized, involves the people who live within the LSR area and whose daily lives are affected by management programs and decisions. These residents use river access points in a variety of ways. They certainly use launch ramps and the river as access for moving equipment and supplies to their property. They also have a tendency to utilize BLM dumpsters and rest area facilities during their daily chores or on their way to other destinations. They use the beaches for family and peer outings regularly. They even hold weddings and family reunions at the recreation sites. This casual and regular use of the resource should not be disregarded entirely in the interpretive plan as these people have the ability to affect resource change, impacts and protection.

OFF-SITE AUDIENCES:

Off-site audiences generally include local and regional residents. These residents may or may not use the LSR regularly if at all. Management assumes that the greatest number of potential users and supporters have been and continue to be the people who live in the area. However, it must also be noted management has observed that non-locals have generally been more supportive of non-consumptive uses of the the resource than area residents. Off-site audiences can be reached through a variety of media with messages concerning the recreational opportunities in the LSR, economic benefits produced, agency activities and concerns, impact mitigating measures etc... The potential for off-site interpretation appears great and should not be ignored (Gebler, 1982). Target off-site audiences should include, but not be limited to, special interest groups, clubs, organizations, schools, and businesses.

SPECIAL POPULATIONS AUDIENCES:

Most major interpretive developments should be designed to accommodate as many disabilities as practical or possible. Interpretive programs, media, and facilities should consider persons of all disabilities. Creativity and consideration is often all that is needed to insure participation by the disabled in most interpretive endeavors (Beechel, 1975). However, due to the lack of funding and limited use of conducted interpretive programming, on-site interpretive developments will be limited to the more standard sign, information kiosk or brochure formats which should be applicable and accessible by most disabilities. Specially designed braille signs are not currently planned nor are audio or other electronic interpretive devices. Trails and major facilities should be designed with most user groups in mind, unfortunately wheelchair accessible trails, say at Lucile Caves, may be prohibitively expensive. It should be noted that conducted activities are not possible on a regular basis but staff should be available for special presentations and requests. Some on site material should be designed for children or to be interpreted to the children by accompanying adults at the major interpretive locations (Machlis & McDonough, 1983).

CURRENT INTERPRETIVE EFFORTS BOTH PUBLIC AND PRIVATE

Bureau of Land Management:

Cottonwood Resource Area headquarters in Cottonwood is staffed weekdays by administrative personnel who disseminate information to office visitors, and respond to mail and phone requests for information. The majority of phone inquiries concern river flows. Standard general informational brochures are kept at the office and are available to any interested persons. There is little written material available specific to the Lower Salmon River resource. A river guide covering the lower portion of the river (from White Bird) has been produced specifically for river floaters and jetboaters. There are also two trifold brochures available concerning human waste carry out and ash removal to the river running population. Effectiveness of these informational efforts has not been fully documented. There has also been a video tape produced involving these same minimum impact camping guidelines. A two dollar fee is charged for the river guide.

Information boards (kiosks) are maintained at Hammer Creek and Graves Creek, and these are directed at the river running population, however they do include area maps and agency camping regulations. The Hammer Creek information board includes a small written account of areas' mining operations. There are no other interpretive efforts on-site, but off-site activities are offered by several staff members informally. These include presentations for schools, historical societies etc... With the exception of an occasional press release, district or state BLM public affairs efforts seem to be negligible in this area. A Cultural Resource booklet, outlining known cultural periods and resource protection efforts, has been produced and is available free to the public. A limited variety of general BLM publications is also available at the headquarters office in Cottonwood.

United States Forest Service:

This agency's efforts within the LSR area are limited to the Slate Creek Ranger Station and USFS campground at Spring Bar. Located at the Slate Creek site are an orientation board and map, and ranger station staff maintains an original Forest Service Ranger cabin from the early 1920's complete with tools, equipment, furniture and photos. Tours are conducted on request by secretarial or reception staff. Area informational brochures and maps are available to visitors inside the headquarters. The Nez Perce National Forest Supervisors Office is located in Grangeville. This office offers both a small visitor reception area that includes a few exhibits on native fauna as well as the sale of interpretive materials (through the NWNFPA) and wide selection informational brochures, driving tours, recreational opportunity information and orientation. While this information is good and up to date concerning the region and USFS lands, there is little offered that deals with the LSR area's management, environmental concerns, recreation opportunities, natural and cultural history.

The Hells Canyon NRA does, however, offer numerous publications on that area's flora, fauna, geology etc... and much of that information does pertain and relate to the LSR. NRA staff have recently published a visitor's newspaper. The BLM may be interested in working cooperatively with the NRA on this venture which highlights area information, orientation, resource protection, and recreation opportunities. The NRA also maintains and operates an interpretive ranch and museum at Kirkwood, four miles by trail upstream from Pittsburg Landing in Hells Canyon. The facility is staffed each summer by volunteers, usually long time area residents, who conduct museum tours and relate oral history. The interpretive site has proven to be very popular, averaging nearly 100 visitors a day during the summer (1987 estimates).

National Park Service:

The National Park Service maintains several wayside exhibits near the LSR as part of the Nez Perce National Historic Park. The closest exhibit deals with the opening battle of the Nez Perce war at White Bird. A visitor center is located at Spalding where area driving tours, a tour guide of the Whitebird battle site, and other LSR relevant interpretive materials and publications are available for sale through the natural history association and for research through the NPS library.

Idaho State Historical Society and other interpretive efforts:

This organization has established a number of interpretive wayside signs throughout the area. However, only two (concerning geology and mining history) are located along the river. These signs are maintained by the highway department and located at state owned pull outs. The organization has also produced a series of short written accounts on a variety of historical events, a number of which concern the LSR area. These are available through society's state office.

Local private museums are operated in Cottonwood at St. Gertrudes convent and in Grangeville. St. Gertrudes offers free tours to the public on a prearranged basis. Collections include primarily historical artifacts dating to the last century. There is a fee charged for the private museum in Grangeville and the two other small public museums are open only one afternoon each week. In addition, several interpretive and promotional efforts are offered by local chambers of commerce and newspapers. Primarily, these involve a series of driving tours that include printed information concerning points of interest, and a vacation or visitor planning guide to the area published annually by the Idaho Free Press in Grangeville. The guide does include a good deal of recreation opportunity and orientation information as well as

historical notes and safety precautions. In addition, there are several good Idaho and regional tour or highway guide books available, however their accuracy is even admitted to be questionable by the author. These would include Cort Conley's "River of No Return" and "Idaho: A Guide for the Curious".

A considerable opportunity exists to network with public information and education programs that are already in place at both public and private levels. Statewide efforts should be coordinated between the various agencies and organizations. Off-site messages, specifically concerning minimum impact use techniques, need to be prioritized and clarified. All agencies in the state must seek to bring clarity and uniformity to these messages statewide. It is reasonable for the general public to adhere to a standardized format of minimum impact guidelines in similar resources but it is difficult to expect them to recognize or even remember a plethora of recommended techniques and regulations. Recommendations for a more unified recreation management approach is made in the Off-Site Interpretive Program planning section.

GOALS AND OBJECTIVES

A policy level goal statement was made in the introduction as to the overall emphasis and purpose of the role of interpretation within the Bureau of Land Management and the Cottonwood Resource Area. The BLM has provided the following definition and program level goals for interpretation and agency interpretive services.

Interpretation:

An educational activity (communication) that reveals principles, meanings, and relationships through the use of original objects, firsthand experience, and illustrative media rather than simply transmitting facts (Tilden, 1957). Interpretation increases the visitor's awareness and understanding of the environment and helps to foster appreciation and protection of public lands resources. Interpretation also focuses on helping visitors understand multiple use management of the public lands.

Goals should provide the overall direction and emphasis for both the plan and program. Objectives have been designed to assist management in attaining goals by providing quantifiable criteria from which program effectiveness can be more accurately evaluated.

Program Level Goals

I. Develop a public land use ethic and reduce BLM's administrative and maintenance costs by developing public cooperation in protecting the public lands from wildfire, vandalism and pollution;

Objectives:

A) Reduce environmental impacts to campsites, recreation areas and visitation points; and reduce negative intergroup audio and visual social impacts.

B) Reduce administrative and maintenance costs for recreation on a per visitor/day basis.

C) Increase visitors' and local residents' knowledge and awareness as to the area's recreation opportunities and appropriate recreation use practices.

D) Communicate interpretive topics which encourage responsible behavior and the development of a land use ethic among users of the LSR and surrounding region.

E) Generate support and cooperation from local and regional groups, organizations and individuals in protection, conservation, site development or information dissemination concerning the LSR. Coordinate information/education efforts with other programs within the BLM and other federal and state agencies.

F) Provide the agency with recommendations of projects or other opportunities for volunteer work or other participatory programs as well as recommendations for future recreation research and quantifiable baseline data needs.

II. Promote public recognition of the need to protect our natural and cultural heritage to assure present and future generations continued opportunities to learn;

Objectives:

A) Reduce recreationist impact to specific cultural resources and fragile ecological sites within the LSR.

B) Increase the awareness of LSR users as to the unique and irreplaceable values cultural resources present to current and future generations.

III. Mitigate resource user conflicts involving recreation;

Objectives:

A) Reduce the number of reported conflicts between specific user groups.

B) Increase awareness among users of common misconceptions and actual documented conflicts among user groups; and communicate methods users may employ to mitigate those conflicts.

IV. Promote informed public involvement in resource decision making by explaining management programs, policy and planning efforts;

Objectives:

A) Instill a general awareness among area residents and recreationists of BLMs' lands, roles and responsibilities.

B) Inform recreationists and other casual (transitory or resident) resource users of LSRs' resource management problems, and provide opportunities for feedback and response systems to solicit public comment and suggestions.

C) Increase visitor knowledge of management's rationale for existing rules and regulation and communicate future resource management alternatives. Inform visitors of well researched facts and statistics so they may have accurate information on which to base their management suggestions and encourage compliance with existing agency regulations and recommendations.

V. Enhance visitors' recreation experiences;

Objectives:

A) Communicate information through a variety of media concerning the geology, natural history, cultural history of the LSR area, as well as providing visitor orientation and recreation opportunity information. This information does not necessarily deal with specific management issues and concerns but does offer background information that reveals interrelationships and interdependencies of selected resource topics.

B) Work cooperatively with other agencies within the region to provide information that is not only applicable to the LSR but to other regional or adjacent areas as well. This effort should reduce duplicity of programs and materials, coordinate informational campaigns and help create a uniformity and consistency of interpretive messages.

VI. Inform visitors of health and safety hazards and precautions necessary to prevent accidents;

Objectives:

A) Increase river and road safety awareness among visitors by identifying hazards specific to the LSR river and road environments, and reduce the number of reported accidents and unsafe acts.

B) Reduce BLM's liability potential by directly warning visitors through signs, posters, and written materials of specific site and environmental hazards and by informing users of mitigating precautions.

C) Increase river safety awareness and general technical skill competence by providing materials and presentations for local publics and commercial outfitters.

VII. Develop public awareness of society's dependence on a continuing flow of natural resources and develop support for the principle of balancing the use of resources through conservation and multiple use management.

Objectives:

A) Provide information concerning other non-recreational uses of the LSR. Efforts should be concentrated on the timber, mining and range demands of the resource and the conservation/sustained yield practices that are employed to maintain the continued flow of these resources.

B) Increase visitors awareness of recreation as one of the major multiple use resources of the LSR and the need to monitor and regulate recreation activities so as to maintain quality and diversity in recreation opportunities for future generations.

TOPICS, THEMES AND INTERPRETIVE MESSAGES

As a result of the interpretive inventory, audience analysis, and a review of resource management goals and objectives, several major topics were identified (Roggenbuck & Fritschen, 1984; Hodgson, 1984). Topics fall under one of the two overall goals mentioned. Identified topics may deal with management concerns or general resource information or both. Topics represent important aspects of the interpretive plan that management wishes to communicate to resource users. Themes are derived from these topics and relate a specific interpretive message to be communicated to the visitor, one that is easy to remember and relates directly with the visitor's experience. "A theme is simply the underlying thought or major point the interpreter wants to make...it is the central or key idea of any presentation" (Enriquez, 1987). Themes are best worded as "declarative statements" (Ham, personal communication, 7/15/87) that answer the question "So what?" about the specific interpretive topic. In this way interpretive messages become more of a revelation that is more easily remembered and utilized than simple factual information. Interpreters should avoid using vague or overused themes as they tend to be uninteresting (Ham, 1983; Lewis, 1980) and should concentrate on positive rather than negative approaches and messages.

The following suggested interpretive topics and themes should only be considered as a partial listing of recommendations. The list of potential themes represent only a few examples of numerous possibilities that could be explored. Both topics and themes should be periodically expanded to meet the changing needs of the resource and its users. It should be emphasized that while these topics do incorporate the more important message categories at this time, future interpretive challenges and problems may require additional topics and creative responses. The plan is designed to be flexible and dynamic in this sense (Roggenbuck, 1981). Appropriate on and off-site delivery and media prescriptions are made in the following section.

A) Topic: Minimum impact use and land use ethics

Themes:

- Recreationists need to carry out human waste and ash so as to maintain the quality of the river environment and experience.
- Human waste spreads many diseases.
- Many river users do not practice proper waste disposal techniques.
- Tread lightly by practicing no trace camping, the many ways we unknowingly leave signs of our passing.
- Trash along the river does more than just look bad, it can injure others, pollute the river, or hurt wildlife.
- Increased visitor numbers necessitates greater efforts to pack out all trash.
- Impacts can be other than environmental, particularly audio or visual.
- Day users can impact more than overnight users because they are not prepared to "pack out" their waste and trash.
- Less visitor impact can mean less regulation and more use allowed.
- Driving on beaches is dangerous to others, can cause bank erosion and degrades others' experiences.

B) Topic: Visitor orientation and area information

Themes:

- The many places to eat, play and stay in the LSR area.
- Points of interest are located throughout the LSR.
- Things to do, recreation opportunities both commercial and non-commercial are numerous and diverse.
- Safe boating practices and a river safety consciousness are absolute necessities for all river users regardless of activity.
- Road hazards and dangers are prevalent along the winding and narrow river roads.
- Environmental hazards, such as snakes, sun, and hypothermia, exist within the LSR area and can even harm the most experienced user.
- Campgrounds and rest areas are found at several points along the LSR and adjacent areas.
- River access points are located at several convenient sites along the road corridor, for floaters, jetboaters and swimmers.
- Camping rules and regulations are needed to maintain the quality of the recreation resource for your next visit.
- There are several major annual events and traditional happenings along the LSR that draw many visitors to the area.
- Fire precautions and concerns are prevalent during the dry summer months and certain restrictions may be in force at any time.

C) Topic: Vandalism, nuisance acts and litter

Themes:

- Costs of such acts to taxpayers each year is substantial.
- Why would anyone do such a thing? Reporting vandalism helps protect the resource and discourages vandals.
- There are many common unintentional nuisance acts that people do without realizing it which harm the environment and the experience of others.
- Most of the resource damage is caused by a minority of users.
- The BLM and USFS offer many opportunities for volunteers to help maintain and protect the LSR area because the agencies cannot maintain the area without the public's help and cooperation.

D) Topic: BLM mandates, role and issues

Themes:

- The concept of multiple use and sustained yield are central to the BLM and the USFS management practices.
- The BLM must see that diverse and, at times, conflicting uses such as recreation, grazing, timber, watershed, and mining are equitably managed so as to maintain a continued flow of these resources.
- The origins of BLM administered lands, the so-called "land nobody wanted", is a result of a hundred years of land management laws.
- The BLM is committed to keeping the lower Salmon river unpermitted if users can keep impacts within acceptable limits.
- The role of fire is a very important factor in a healthy ecosystem, controlled burns are necessary to maintain ecological balance and flow.
- The BLM's management planning process requires that the public have sufficient opportunity for input on management issues.
- There are several effective ways to receive information or submit opinions to the BLM on all resource management issues.
- The regional economy benefits greatly from recreation on BLM lands and the LSR in particular.
- River patrol rangers are there to assist visitors and maintain the resource.

E) Topic: Cultural resource protection

Themes:

- There are proper ways to enjoy archeological sites without harming them.
- Preserving the past is everyone's responsibility.
- We all benefit from cultural sites.
- Cultural resources are often very fragile and irreplaceable.
- There are several strict laws and regulations concerning cultural resources which may involve severe penalties.
- Recognizing cultural sites is easy and helps people keep them intact for others to enjoy.
- Removing artifacts from sites destroys their value to others and to future generations.

F) Topic: Geology and mining

Themes:

- The origin of the LSR canyon and its rock is relatively young geologically.
- River morphology, age and canyon formation are continuous processes, happening at this very moment.
- Placer mining is different than hard rock mining.
- To protect the environment there are several state and federal regulations guiding mining and reclamation.
- Withdrawing the LSR from future mining activity will help protect the recreation resource.
- Rock and land form effects flora and fauna.
- The LSR is considered one of the deepest canyons in the U.S.

G) Topic: Human history

Themes:

- Early man and pre-historic cultures and life-styles fit in well with their environment.
- The LSR was a traditional Nez Perce Indian fishing and hunting area.
- The dependence of all cultures on the river and surrounding resources for food and shelter continues to this day.
- The Whitebird "massacre" and battle was the result of misunderstandings, ignorance, and a lack of cultural tolerance.
- The graves of some of those "massacred" at the beginning of Nez Perce war are located near the river and reflect the hardship of those times.
- The Nez Perce crossed the Salmon and Snake river on three separate occasions in June of 1877 without boats at flood stage, without loss of life, a significant feat.
- Life of a Salmon River homesteader in the 1890's was not easy and without many modern conveniences.
- The Salmon River was first navigated in the late 1800's by men in large wooden scows.
- The origin of the name "River of No Return" comes from the fact that the original boats could go down but not up.
- The effects of Chinese mining and other mining efforts, some over a century old, can still be seen today.
- CCC work of the 1930's was responsible for most of the roads and bridges still in use today.

H) Topic: Salmon River information and ecology

Themes:

- The annual flow patterns, record floods and low flows are the result of one of the last "wild" and uncontrolled rivers in the Columbia basin.
- There are recommended safe boating levels.
- User numbers have increased dramatically over the last ten years.
- Milage, access point, shuttle, and campsite location information is available from a variety of sources.
- There are low and high use seasons on the Salmon River.
- Minimum impact use practices help maintain the quality of both the environment and recreation experience.
- The Salmon River canyon contains an amazing diversity of plant and wildlife.
- There are several endangered and threatened species in the area.
- Certain ecologically fragile areas have been closed to grazing.

I) Topic: Fishing

Themes:

- Anadromous fish regulations are necessary to maintain healthy populations.
- Man has had both a positive and negative influence on fish populations.
- Fishermen's responsibility to the environment does not end with the fish.
- The Steelhead population is making a significant recovery.
- All fishermen should know proper fish identification, characteristics, habits and habitats.
- Proper disposal of fish entrails helps keep river banks clean.
- Proper hook removal helps keep more fish alive to be caught again.
- There are several alternative fishing sites and areas within the LSR and region where fishermen can avoid crowding and overuse.
- The LSR has had historic native fishing use.
- The vast majority of anadromous fish are caught in the ocean.

J) Topic: Hunting**Themes:**

- Bird identification, primarily species of upland game birds and waterfowl.
- Hunting opportunities and regulations for game, specifically deer and elk.
- Hunters should respect private property rights.
- Identification and information concerning endangered species such as Bighorn Sheep, Bald Eagles etc...
- Proper disposal of entrails etc...

K) Topic: Conflicts**Themes:**

- River etiquette and considerate boating practices help relieve tensions and misunderstandings.
- Efficient boat ramp use and consideration for other users makes for a more pleasant experience.
- Certain safety precautions for both jetboats and floaters should be followed when they come into contact while on the river or near ramps.
- Some launch sites are better for floaters.
- Much of the land along the river is private and landowners rights should be respected.
- Small groups should choose small campsites to avoid encroachment and conflict with other large groups.
- All river users should have an awareness of their social impact on others.
- There are proper ways to report conflict or safety incidents.
- There are several alternative river access points that are more rarely used than others.

PROPOSED INTERPRETIVE PROGRAMS AND MEDIA PRESCRIPTIONS

The following summaries of programs and prescriptions are categorized as on-site or off-site. On-site refers to specific developable locations within the LSR area that lend themselves to interpretive efforts. These are areas of high use concentration, particularly access points, recreation sites, or points of interest. These areas are easily utilized for physical developments such as signs, posters, exhibits, or self-guided trails. On-site programs and prescriptions may involve published material such as brochures or maps, but will generally involve signs or information boards pertaining to a particular location. Guided or programs requiring on-site personnel were not considered as possible prescriptions, at least not during the initial phase of the plan.

On-site interpretive locations were chosen according to visitor use patterns along the highway and river corridors, or as a result of a specific interpretable feature. Major consideration is given to the type of recreationist who most often utilizes a site as to the selection of topics and themes. Therefore, site selection criteria included consideration of the capability of the resource to illustrate the interpretive message, the location of specific management problem areas and existing developments, and visitor/visitation preferences (Enriquez, 1987; Roggenbuck, 1981).

Off-site recommendations involve interpretive efforts outside of the immediate LSR recreation or visitation sites. This would include media that is directed toward specific audiences who may or may not regularly utilize the resource or as part of general information or public relations campaigns. Off-site media prescriptions could include published materials such as brochures, informational packets, maps and guides, magazine articles, and newspaper PSAs etc...Other alternatives for off-site interpretive programs could include presentations, coordinated volunteer efforts, special events, and radio and television spots.

The potential effect of off-site interpretive programs may be greater than the standard on-site developments on visitors, particularly in the LSR area where most visitors are regional residents. As Gebler (1982) notes that off-site interpretive programs help "bridge the gaps that may exist between the local people and the park (resource)" and that such programs are very important because they permit local/regional people to view the resource as part of their overall community. Off-site interpretive efforts have great potential as public relations and management tool (Gilbert & Fazio, 1986; Roth, 1978). In addition, many potential off-site messages are applicable to all outdoor recreation areas, opportunities, and practices. Certain topics and themes may relate directly to other similar resources within the region. Therefore, it is important that off-site messages be coordinated with other agencies so efforts are not so often duplicated or contradictory.

ON-SITE INTERPRETIVE PROJECTS AND PRESCRIPTIONS

The on-site summaries are listed in geographical order starting upstream at Vinegar Creek and ending with the Eagle Creek area. Summaries identify site, main user audience, specific interpretive program objectives (as numbered under goals and objectives section), topics (appropriate themes for each topic are identified in the previous section), recommended media and justifications if required. Implementation priorities and cost estimates are covered in the following section. Specific site development recommendations may be developed at a later time utilizing site/story development format.

Site: Vinegar Creek and Cary Creek

Audience: Primarily, Jetboater access/egress for the Main Salmon, floater egress from main Salmon. Others include floater access for lower Salmon River section.

Objectives: IA; IIIA; VB; VIA;

Topics: Minimum impact use; user conflicts; fishing; river facts and figures; visitor orientation and safety

Media: Information board and orientation sign

Justification: Site is utilized by floaters and jetboaters. Efforts should coordinate with USFS needs on the Main Salmon. Condition of the area is at times a problem and warrants an emphasis on mitigating conflicts, particularly on ramp use etiquette and on river jetboat vs. floater contact. Proper disposal of wastes should be addressed for groups taking off the river as well as limited minimum impact use information for those embarking on trips. Use channeling by offering alternative access and use sites may help reduce conflicts and ramp congestion. Floaters should be encouraged to use the downstream ramp or other access points below and jetboaters should be directed toward the main ramp. Signs should be kept to a minimum and be unobtrusive as Vinegar Creek is at the boundary of the Wild River section.

Site: Manning Bridge or French Creek

Audience: All

Objective: IVA; IVC; VA; VB

Topic: Human history, BLM wildfire management and fire ecology

Media: Wayside sign and turn out, driving tour brochures at Riggins.

Justification: It would seem of general interest to interpret the interesting background of road development and CCC work history of the area. Of particular interest may be the fatalities and difficulties experienced by road workers as well as the early stage route and pioneer road development. In addition, there have been several wildfires in this area the scars of which are visible from several points along the road. This is an excellent opportunity to communicate BLM fire management practices and fire ecology.

Site: Spring Bar

Audience: Floaters both taking off and putting on the river.
 Information for campers is supplied by the USFS via an information board but this information could be expanded to include more information for fishermen and hunters.

Objectives: IA; VA; IIIA;

Topics: Minimum impact use; visitor orientation and safety; River facts and figures

Medium: Sign (information board, small)

Justification: Information should be directed toward those floaters who are putting on the river only, as the USFS maintains orientation signs for other users. It should be remembered that Spring Bar is often used by first time or novice floaters and those wishing to extend a one day river trip or spend a night on the river. Therefore opportunity exists here and at Shorts Bar (as well as Hammer and Graves Creek) to inform and influence inexperienced and novice river runners and to contact one-day recreational users. It has been documented that inexperienced and first time resource users are not well informed and most likely cause greater impacts (Ross & Moeller, 1974). Jetboats do not often use the ramp as they are limited by rapids both up and downstream. However, fall fishing and hunting activity is heavy in this area and should also be addressed.

Site: Mile 90 Bar, above Shorts Bar, (currently in private ownership).

Audience: Campers and fishermen

Objectives: IA; IIIA; VIA, B;

Topics: Minimum impact use; Orientation and safety; Fishing

Medium: Small information board

Justification: This site seems to be regularly used by campers and is heavily used on weekends during Steelhead season.

Site: Shorts Bar

Audience: River day use floaters and swimmers/picnickers.
 Steelhead fishermen and overnight campers during heavy use periods in the fall.

Objectives: IA; IIIA; IVA; VIA

Topics: Minimum impact use; Orientation and Safety; Fishing; BLM role; River facts and figures

Medium: Small user specific information board

Justification: Heavy day use warrants some increased facilities in the way of outhouses and trash receptacles, however, information efforts concentrating on the cost of such facilities may encourage users to pack out their trash. Human waste disposal seems to only be a problem with overnight users, efforts concerning this issue should be directed at overnight river floaters or site campers. Again river safety and orientation is applicable here, environmental hazards should be well addressed. There is also the opportunity to inform visitors that Shorts Bar is for the most part not on BLM lands and is part of the area managed by the Cottonwood

R.A.. In addition information should emphasize that the complexity of both the resource and ownership requires, like most of the LSR, special resource management considerations and cooperative efforts, along with appropriate management policies. Some river lore and history may be included to gain and hold the interest of the reader.

Site: Riggins rest area and boat ramp

Audience: All

Objectives: IA, B, C, D; IIA, B; IIIA; IVA, B; VA; VIA, B; VII;

Topics: Most topics should be covered in some respect in brief and to the point format. Emphasis should be on area orientation, safety and general transient visitor information, including brief cultural and natural resource highlights. Details of river/boating safety, river facts and figures may be kept to a minimum, however minimum impact use and BLM role information should be communicated.

Media: Major visitor information/orientation board/kiosk; small signs addressing efficient ramp use and boating safety. Brochure and map dissemination could be done at this site as well.

Justification: Riggins is a regular stop for both river users and travelers alike. The rest area is a convenient and logical place to establish a major information board, as it is at south end of both the highway and river travel corridors. Cooperation in the establishment and maintenance of the sign and information board can be solicited from the local chamber of commerce and visitor information office as both commercial and non-commercial recreation opportunities may be listed as well as local places to eat and stay. Proper orientation maps and information can channel users to established recreation sites and encourage compliance to waste disposal recommendations by offering acceptable alternatives to the visitor. BLM can also use the site to inform visitors of the BLM administered LSR area and agency mandates and issues.

Site: Jack Ass Flats

Audience: Campers and floaters

Objectives: IA; IVA, B; VA; VIA, B; VIIA;

Topics: Minimum impact use and agency roles should be emphasized. Opportunities exist for general geology, mining and human history interpretation. Consideration should also be given to general orientation and recreation opportunity information also.

Medium: Information sign/kiosk

Justification: The LSR management plan calls for the possible improvement of the Jack Ass Flats area as a campground with water, electricity and waste disposal facilities. If and when the area is developed an information sign board and orientation map should be incorporated into development plans. In addition, if a floater access ramp is created to relieve congestion at the Lucile ramp then additional boating information should be incorporated. It should be remembered that both Lucile and Jack Ass Flats are primarily used as take-out points changing river information emphasis from minimum impact use to proper waste disposal and mitigating boat ramp conflicts.

Site: Lucile Boat Ramp

Audience: River floaters and fishermen

Objectives: IA, B; IIIA;

Topics: River waste disposal, anti-vandalism and littering should be emphasized. Proper and efficient ramp utilization should be encouraged. Traffic flow signs and highway warning and access information.

Media: User specific signs, posters, and small information board.

Justification: As a primary day use take out site for both commercial and non-commercial float trips users should be encouraged to make efficient use of the small area and encouraged to use Jack Ass Flats as an alternative site. Conflicts between parties may be reduced if directional traffic arrows and maximum ramp time use limits are suggested. The river access point should be identified by a road sign and hazard signs to motorists should be posted along the highway warning of turning traffic and possible pedestrians. The area should be closed to camping during the high use river season, possibly May through September.

Site: Lucile Caves Ecological Area

Audience: All, primarily travelers and day users/picnickers

Objectives: IB, C; IIA, B; VA;

Topics: Natural history, primarily concerning the unique and fragile ecological area surrounding the caves. The endangered MacFarlands Four O'Clock should also be interpreted even though it does not exist at the site. Geologic interpretation is of significant value due to the relatively unique limestone depositions and the nearby geologic diversity. The BLM has an opportunity to interpret adjacent ranching and mining operations in direct juxtaposition with the fragile ecological area. Hazard warning and trail safety precaution information is a liability necessity if the trail is developed or self guided interpretive effort implemented.

Media: Small information sign board, self-guided trail and an accompanying brochure. The brochure may be made available on site as well as Riggins, Grangeville and Whitebird. Small entrance and parking signs are also appropriate as is an orientation sign directing visitors to facilities at the Lucile Boat Ramp if they are needed.

Justification: The Lucile Caves area is the one of the most unique and valued ecological resources of the LSR. Self-guided trail development is an appropriate but expensive interpretive development. However, as the only interpretive facility of this nature proposed by this plan Lucile Caves offers the best opportunity for natural history and ecological interpretation in the LSR.

Site: China Creek Pullout (Idaho State Historical Society Florence interpretation site)

Audience: Travelers and day users

Objectives: VA;

Topics: Mining history and homesteading of the late 19th century.

Media: Expand existing state highway sign with a wayside sign explaining mining adits, current and past placer operations, and the homestead on the opposite shore.

Justification: A state wayside sign already exists explaining the gold mining boom of nearby Florence, additional interpretive information could enhance the effect of this wayside stop including a regional map of the area showing the location of Florence and other old town sites and mining districts. Information should emphasize early homesteading and past/current mining activities.

Site: Salmon River Canyon geologic pullout

Audience: Travelers and day users

Topics: Geology and the formation of the Salmon River. Possibly information relating to the origins of the nick name "River of No Return".

Medium: Small additional wayside sign

Justification: As a brief geologic sign already exists, there is an opportunity to build on that information and supply a more detailed explanation of the area's geology including regional and/or cross sectional geologic maps. The nearby narrow canyon is of significant interest to passersby and the pullout itself is large and easily utilized by motorists.

Site: Slate Creek Rest Area and Recreation Site

Audience: Travelers, floaters, fishermen and campers

Objectives: Most interpretive objectives could be addressed, with an emphasis on minimum impact and responsible use of the facility itself. River/boating safety and conflict mitigation information should also be presented.

Media: Opportunities exist to use the existing sign as a visitor orientation/information board for the general traveling public. A permanent regional road and highway map would be helpful. An additional river user information sign may be appropriate adjacent to the boat ramp itself.

Justification: This is a heavily used rest area for both day picnic use and overnight camping. A few commercial float operations utilize the ramp as a take out point and a meal preparation area. If the camping area is expanded additional interpretive signs should be incorporated into the development plans. An excellent opportunity exists to inform recreationists of alternative and less used recreation sites and river access areas in both directions from Slate Creek. A short overlook trail and vista interpretive sign could be developed at the site to provide travelers with a short access walk to view the river and canyon.

Site: Twin Bridges Campground

Audience: Campers and fishermen

Objectives: IA, B, C; IIA, B; IVA, B; VA, B; VIA;

Topics: Minimum impact use, responsible behavior and costs of vandalism/litter; as a cooperatively managed recreation and river access site BLMs development or improvement capabilities may be limited. If it is possible to allow sign and information boards to be constructed, standard orientation and safety information should be highlighted. The area's cultural history should also be interpreted incorporating cultural resource protection information.

Media: Sign and Information Board/kioske, cultural history sign and brochures.

Justification: As a large, road accessed river campground Twin Bridges has a significant number of overnight users. Facilities need to be upgraded and cooperative agreement should be worked out between the state and the BLM. In addition to the standard minimum impact and responsible resource use information the immediate cultural site should also be interpreted. The ramp and river access is not regularly used by either floaters or jet boaters, therefore river safety, facts and figures are not a priority.

Site: Skookumchuck Recreation Site

Audience: Primarily, day users and picnickers. An occasional non-commercial river floater uses the site for river access.

Objectives: IA, B; IIA; IVA, B; VA; VIA, B; VIIA;

Topics: Responsible resource use, general visitor information and orientation materials along with brief natural and cultural resource information. River safety and environmental hazards precautions/information. Of particular interest to visitors may be the origin of the word Skookumchuck and related Indian lore.

Media: Information sign/kioske; major information center and interpretive facility

Justification: The Skookumchuk site offers an outstanding opportunity to be developed as the major interpretive visitor center for the LSR area. The adjacent turn-of-the-century homestead could be utilized as a museum, visitor center and living history demonstration area if and when it becomes available to the BLM for such a facility. Volunteer hosts could be used to staff the facility and maintain the museum and/or exhibits during the high use summer season. Local business organizations or historical societies should be encouraged to assist in the site's development and maintenance. Initially the site should be developed as a "gateway" visitor orientation and information area much the same as Riggins on the opposite end of the river corridor. An appropriate information kiosk should be established.

Site: Nez Perce Raid Cemetery

Audience: All

Objective: VA

Topic: Nez Perce War and significance of the opening violent act of the war.

Medium: Small wayside sign

Justification: The small cemetery includes several century old headstones marking the graves of victims whose demise lead to the Nez Perce War. The NPS may be interested in assisting in the development of this site as part of the Nez Perce National Historic Park cooperative system. It would require only a small roadside sign and the establishment of a short trail up to the graves.

Site: Hammer Creek Recreation Site

Audiences: Floaters, Jetboaters, fishermen, day use recreationists, local residents, and campers

Objectives: IA, B, C; IIA, B; IIIA; IVA, B; VA; VIA; VIIA

Topics: Minimum impact use, conflict mitigation, cultural resource protection and river safety are of primary concern to management. Due to the diversity of user types, it is recommended that two separate information boards be constructed, one for river users and another for day users/campers. River facts and figures, river lore, fishing and fish species/habitat, natural and cultural history could all be addressed. Complete orientation and other recreation opportunity messages need not be part of the interpretive efforts as it would duplicate information at the other highway recreation sites. However, camping regulations and alternative camp or recreation site locations should be part of camping/picnicking information board. It may also be appropriate to design a short self-guided interpretive trail around the Hammer Creek Recreation site. The trail theme(s) could include mining history or natural history. A short brochure could be utilized and 1/4 mile trail with numbered stations designed.

Media: Information kiosk; river guide and river use handouts; personal contact via ranger, student or campground host; possibility of a short self-guided historical mining interpretive trail or short text site information signs; brochure availability if personnel are present.

Justification: As the major river access point for the final, more remote fifty miles of the Salmon River, Hammer Creek is heavily utilized by both floater and jetboaters. There are also a significant number of travelers who use the parking lot as a campground and a few local resident day users/picnickers. Due to the inappropriateness of on-site facilities below Hammer Creek this area offers a "last chance" (with the exception of Graves Creek-Pine Bar area) to influence recreationists with on-site interpretive signs. Personal contact is by far more effective than signs or information boards and should be utilized at this site during high use seasons. Any future campground development should include additional information signs directed at campers and travelers leaving the boat ramp kiosk for river use interpretation. It is also recommended that small floater information signs be placed at the nearby Waterfront Motel and Campground as well as the

state gravel pit ramp to inform boaters of necessary regulations and registration procedures at Hammer Creek.

Site: Graves Creek/Pine Bar/American (Taylor) Bar

Audiences: Floaters, Jetboaters, day use recreationists and fishermen

Objectives: IA, B; IIA, B; IIIA; VIA;

Topics: Minimum impact use, proper waste disposal, fishing, and responsible use practices should be emphasized. Cultural resource protection and BLM role information may also be applicable. Swimming hazards associated with swift currents and cold water should be emphasized.

Media: Information sign board/kiosk, permanent area/river map

Justification: The Graves Creek area is frequently used by local day use fishermen, jetboaters, and recreationists. It is also the take out point for a number of one day commercial and non-commercial float trips. Most importantly, nearly 45% of overnight floaters launch their trips at one of the sites. Emphasis should be on proper waste disposal and minimum impact use. Warning as to river hazards are appropriate at Pine Bar. Existing Pine Bar warning signs have been vandalized and therefore in themselves offer the opportunity to point out the costs of irresponsible acts. It also should be noted that the remoteness of the area (and its proximity to Cottonwood) lends itself to such nuisance acts and vandalism. Interpretive efforts should be kept to a minimum and "vandal proofed". Cultural resource protection posters and interpretive information signs are relevant, particularly in the case of the marked grave site and prehistoric cultural use in the area.

Site: Eagle Creek

Audience: Off Road Vehicle users; day use/picnickers; campers; fishermen

Objectives: IA,B; IIA, B; IIIA; VI A

Topics: Proper ORV use and regulations; minimum impact use considerations and practices; vandalism; cultural resource protection; BLM role; safety concerns (swimming hazards)

Media: Road side entrance information sign; area map and ORV designated trails/roads; theme posters; (all media materials should be vandal resistant as should any facilities', ie. use of steel posts or cement outhouses. Enforcement personnel should be on site during high use periods.

Justification: As a high use and traditional ORV area where vandalism has been a problem in the past, any on-site facilities should be made "bomb proof" or quite vandal resistant, if possible.

On-site signs may have only a slight effect on ORV users but may encourage some cooperation and compliance, other off-site programming may prove to be more effective (Dorman & Fridgen, 1982; Propst, Schomaker & Mitchell, 1977). Personnel should be available for on-site patrol and visitor contact/interpretation during high use weekends. It may be possible to enlist the cooperation of a local ORV club or group to conduct clean up outings or information campaigns to protect their right to continue to use the area.

OFF-SITE INTERPRETIVE PROGRAMS

There is virtually no limit to the types of interpretive efforts that could be implemented off-site concerning the LSR area. Projects and programs are limited only by the manpower and enthusiasm required to implement and follow through on the following recommendations. The off-site interpretive program incorporates a variety of approaches including those that are considered public relations, market-oriented and educational in nature.

Management may select aspects of the separate projects or information campaigns or they may wish to concentrate efforts only on a few programs. It is recommended, however, that projects should be implemented in their entirety if possible, as a poor interpretive effort is not better than none at all. It also must be noted that the more far reaching and diverse the interpretive efforts are, the more persuasive they may be. Well designed mass media information campaigns have proven effective in changing attitudes and influencing behavior (Zimbardo, Ebbesen & Maslach, 1977). Therefore, off-site interpretive programs should be comprehensively designed and should utilize delivery systems that will best contact specified audiences (Dorman & Fridgen, 1982).

Cooperative endeavors with a number of different organizations and agencies should be pursued and should utilize a variety of media and delivery systems. It may be possible to coordinate messages such as minimum impact use techniques with agencies throughout the state and region. By striving for uniform messages and a variety of delivery systems information and education programs become much more effective especially in dispersed outdoor recreation settings (Mertes, Glick, & Bell, 1979).

Publications:

--River Guide and Primer:

The current river guide is both popular and useful. It is suggested that before the next printing of the guide, the publication should be revised and include maps of the entire lower Salmon River from Vinegar Creek to Heller Bar on the Snake River. It may be possible to produce a river guide/primer in conjunction with Hells Canyon NRA as both resources are utilized by similar visitor types and are affected by similar impacts. Any new river guide should be expanded to include more general and site specific natural and cultural history information as well as brief "how to" methods for waste disposal and minimum impact use guidelines. Pre-trip planning information is not necessary as it does not relate to the on river use of such a guide. The Selway-Bitterroot Wilderness Primer provides a reasonable format to pattern information categories and delivery style for a comprehensive resource guide.

An additional type written page or two could be worked up along the lines of "Things all river runners should know about the LSR" or a pre-trip planning question and answer sheet to send out in response to river information inquiries. Hells Canyon NRA and other agencies use similar information packets to send out in response to information inquiries. These are inexpensive and can be easily updated from year to year.

--Hells Canyon NRA newspaper:

The BLM should offer comments and assistance in the publication of this new visitor information and interpretive endeavor. Articles could be written to more fully explain minimum impact use techniques and the rationale behind such recommendations. The paper could even incorporate an entire page or section that is dedicated to the Lower Salmon River Area. This publication has the potential to be a cooperative effort and the Hells Canyon NRA may welcome any assistance in writing articles or the submitting of informational and interpretive materials.

--Newsletter 1: The BLM may wish to publish an annual "River Runner's Newsletter". This would only require several typewritten pages of information concerning river use statistics, management concerns, safety precautions, general interest notes, current resource projects, flow summaries, etc.. that involve the lower Salmon River. It could be used to provide frequent users or concerned individuals/organizations up to date information on resources issues and help build an awareness of BLMs' policies and activities. It would also encourage public input and comment as to management objectives and programs. This proactive public relations has been used successfully by several other river management agencies. Unfortunately, due to the current permit format the BLM does not have available adequate address lists on which to base mailings.

--Newsletter 2: The BLM may wish to work with other river management agencies within Idaho or the region toward the publication of a information newsletter. The newsletter could be sent to all recent permittees, applicants and outfitters who frequented any of the areas rivers in the past year(s). The newsletter could inform river runners of the same statistics and management concerns listed in the preceding paragraph. It is assumed that many of the river floaters and jetboaters use several of the regions' rivers and other agencies' address lists could be used as a means of direct contact with these visitors.

--Direct mailings: Groups such as the jetboaters or community leaders could be contacted directly through letters outlining management concerns and soliciting recommendations and input. Due to the fact that these groups are of limited numbers and are quite dispersed, direct mail may prove to be the most effective means of communication. As a personalized form of communication, direct mail is considered one of the most effective marketing and public relations techniques. It should be utilized more often in the public sector. It is important to be sure to solicit responses to fully involve persons and encourage cooperation.

Brochures:

--Fishing on the Lower Salmon: Deals with anadromous and other native or sport fishes of the river. It should be designed with the interests of fishermen in mind, and include seasons, habitats and patterns of fish; proper disposal of fish entrails; access points and camping areas; and minimum impact use methods.

--Cultural Resource Protection or Cultural Heritage: Should be designed so as to not duplicate the Cultural Resource Booklet and care must be taken to emphasize positive aspects of protecting cultural sites. It should be directed toward both the river user population and casual short term visitors.

--Human waste and river user information ("Turd Facts"): A one page rationale for human waste and charcoal carry out regulations. It should provide accurate and convincing statistics concerning these impacts along the LSR. It should be sent out with all river inquiries and issued permits, and directed toward both commercial and non-commercial publics. Revealing the staggering user numbers and volume of waste may convince some users to comply with recommended carry-out techniques. It should also allow visitors factual information on which to base resource management suggestions involving the LSR.

--Visitor orientation guide to the LSR: This may require the publication of a brief tri-fold or typewritten page(s) explaining camping and recreation site locations and regulations within the LSR. It should include a map and a standardized symbols key/legend for the various recreation opportunities in and near the management area, (including USFS, Idaho State, and NRA areas as well)..

--A direct and to the point brochure could be designed that addresses the regional river management concerns involving mutually shared impact and misuse problems. A plethora of such brochures currently exists and often contradictory information and a variety of mitigating methods is contained in the different publications. An effort could be made to standardize techniques and messages as the general trend seems to move toward carry out waste systems and certain basic no trace camping recommendations.

Other potential brochure topics:

-- Birds and wildlife of the LSR: includes brief descriptions and checklists of area fauna.

-- Plant identification pamphlet: would briefly identify major plants and community types of the LSR. This could be incorporated in an expanded version of the Hells Canyon NRA plant booklet.

--"Do we have a problem here? A river etiquette guide": The concept of this brochure concerns perceived and actual conflicts among river user groups. It could offer perspectives on certain conflict issues from all groups concerned and offer mitigating measures both sides may practice to reduce problem situations. It

could identify misconceptions and unfounded generalizations held by the opposing sides of various issues, primarily jetboats vs. floaters. It could also offer common courtesy suggestions for standard conflict situations such as ramp crowding, private lands, noise, and campsite selection.

--Interpretive fliers: Simple (8"x11" standard typed) single page informational fliers could be developed on a variety of topics. A "no nonsense", direct and factual format should be used. Fliers are easily updated and revised. Topics could include human waste problem, grazing and mining information, user statistics, future recreational developments or planning needs, and cultural history information/protection.

--A new recreational gold mining and dredging brochure could be written to better outline minimum impact and recovery techniques as well as regulations and permitting. It could also include historical mining information.

Note on published/written materials: The BLM may not wish to duplicate existing materials and utilize interpretive publications or written information supplied by other agencies in the area. The Cottonwood office should develop a more extensive supply of informational materials by utilizing other agencies' existing publications, or the BLM could simply transfer general public information text to their own letterhead. Topics may include regional or local history, geology or natural history and could be disseminated to school groups etc.. or included in any requests for area information. The BLM may also wish to approach private businesses and organizations (outfitters, food/equipment stores, ad council, Nature Conservancy etc...), as potential sponsors for particular publications. The BLM could also recommend the inclusion of minimum impact information in promotional materials developed by local communities.

Articles and Public Service Announcements (PSAs):

The BLM from the resource area, district and state levels should seek out newspapers, magazines, catalogues, visitor guides, fishing guides etc... and offer resource management articles or interpretive information that could be included in these publications. Standard articles that deal with topics such as cultural resource protection, natural/cultural history, river safety, facts, or lore; minimum impact use guidelines etc.. could be written and submitted on an annual basis.

The Cottonwood resource area should also submit weekly (or monthly) articles on current resource issues, use projections, and management concerns to local papers in Grangeville, Cottonwood and Lewiston. A constant flow of general resource information will enhance the public's awareness of BLM policies and practices. It will also encourage readers to respond with constructive criticism or support for various management programs. Article topics could also include simple "did you know" facts and interesting anecdotes about LSR resources and the surrounding area. These could only

help build understanding and awareness among local residents of the values of the public lands.

Local and regional outdoor/sports writers could be encouraged to write articles and editorials which encourage land use principles and offer minimum impact use methods. Writers should be contacted directly and could be offered rationale, statistics and guidelines by the BLM. Certain topics could appear annually and others may be appropriate at shorter intervals or as part of standard recreation articles.

Posters and Theme Signs:

Several theme posters could be designed and placed at appropriate locations. Topics such as wildfire, vandalism, chemical toilet care, human waste, cultural resource protection could be tastefully and creatively addressed. Visually graphic posters can draw attention to management problems and briefly offer solutions or requests for compliance. Posters should be placed where they are immediately relevant, such as chemical toilet and human waste issue posters placed inside of the outhouse itself, fire precautions near fields of Cheatgrass, how to report vandalism signs erected near vandal prone areas etc...

Successful use of popular comic strip styles or characters to relate regulations or recommendations has been done by other agencies in the past. Perhaps specific comic strip writers could be requested to design topic specific posters.

Presentations:

Presentations can include prepared talks, slide shows, videos, on a variety of topics concerning the LSR. Groups and organizations must be sought out and identified, generally such organizations or schools do not actively pursue speakers/presenters but may solicit BLM personnel if they are made aware of their availability. Staff should be surveyed for interest and expertise on a variety of subjects and their willingness to make themselves available for presentations and speaking engagements. A list of topics and speakers could be sent out to area schools, historical societies, scouting groups, business and other potentially interested clubs and organizations. A slide/tape program concerning the LSR could be developed by the University of Idaho and made available to organizations and schools. School programs, such as Project Wild or Project Learning Tree are excellent ways to incorporate land management agencies, issues and personnel into curriculum.

An additional approach involves the BLM in the active role of arranging and making presentations themselves. Several USFS districts nearby offer a "Lecture Series" on a variety of resource topics and river skills oriented presentations that are open and advertized to the public at large. However, presentations may be better attended if the BLM speaker presents at a regularly scheduled organization meetings or outings.

Outfitter/guide Interpretive Trip:

Commercial guides act as effective information disseminators to a large segment of the LSR visiting population. The influence of commercial guides on the opinions and knowledge held by their clientele has been well documented (Cockrell, Bange, & Roggenbuck, 1984). It is therefore in the best interests of the BLM to attempt to inform guides of accurate and appropriate resource information and interpretive topics as well as to encourage safe boating and minimum impact use practices.

The annual outfitter/guide and BLM interpretive trip should be expanded from a single multi-day trip to include an additional one-day trip in the Riggins area directed toward the large number of one day boatmen. It could be strongly encouraged among the outfitters to coordinate an early season trip and involve as many of the guides as possible. Emphasis would be on general safety concerns and precautions as well as interpretive information concerning the river resource. Such outings, if professionally organized and conducted, offer exemplary opportunities for disseminating accurate information and building an awareness of the role and competency of the BLM. The BLM should strongly consider opening the trip(s) to the opinion leaders of various private groups or local communities and organizations. BLM staff could also make themselves available to commercial outfitters during their training sessions to further help communicate resource management concerns and mitigating techniques.

Visitor Information Specialists and local Chamber of Commerce:

BLM staff may wish to contact the areas' visitor information personnel such as the Chamber of Commerce staff or visitor service volunteers in the local communities. A few minutes with each person explaining recreation opportunities and minimum impact use concerns could only help to further disseminate interpretive messages concerning resource impacts and other management issues. The USFS and the BLM may wish to conduct a one day outing or river trip with these information disseminators and perhaps community opinion leaders or chamber of commerce members as well. Cooperative programs or developments could be discussed and expectations, roles and responsibilities clarified. Structured programming and planned agendas help keep these trips from becoming ineffective boondoggles.

Recreational and Special Interest Groups:

A concerted effort should be made to identify and contact organizations whose members are visitors to the LSR area. Once identified these organizations should be approached for opportunities for the BLM to make presentations or conduct question/answer forums concerning resource issues of particular interest to the user group. Organizations such as River Access For Tomorrow, Sierra Club, Off Road Vehicle Clubs and hunting/fishing groups should be likely candidates for presentations and information exchange. Communication must be two-way, and informal forums and discussions go a long way in developing a rapport with special interest groups and provide a basis for a

constructive working relationship. An address list of special interest groups and their leaders should be developed and updated periodically.

Special Events:

The Cottonwood BLM office, (or district or state offices) could sponsor information booths or signs during local special events (ie Buggy Whip Days in Cottonwood, Grangeville rodeo etc...). A traveling display/exhibit could be developed on resource management or recreation use topics. Such a traveling display could be utilized by school or scout groups or as part of any formal presentation.

The resource area could conduct its own special events. A LSR appreciation day that may include walks and lectures concerning interpretive or recreation opportunity topics as well as a picnic could be sponsored. Clean-up or a maintenance day could be organized along the lines of volunteer use on the nearby Lolo trail on USFS lands. Another opportunity could be pursued concerning the possibility of conducting a "Steelhead fishing clinic" during which nationally recognized experts and equipment representatives could provide instruction. The BLM could use this opportunity to voice management concerns and demonstrate minimum impact techniques.

Volunteers and Community Service Projects:

The BLM should actively seek volunteers for authorized work projects and improvement programs. It could also develop a "wish list" of community service projects that local groups could become responsible for implementing and monitoring. These projects could be short term or part of an ongoing project. They may involve clean up campaigns, adopt-a-site for care and maintenance, organized river "patrol" trips, information sign upkeep, brochure dissemination, campground host programs or even manning a future interpretive visitor center.

Volunteers can be used in a variety of roles. The keys to successful use of volunteers are recruitment, clear job/duty descriptions, and appropriate supervision. Initially, area staff must organize thoughts as to potential jobs or projects that can be accomplished by volunteer labor. Positions should be well described, objectives clarified, and supervision delineated. As with any position, potential volunteers must be made aware of the different volunteer opportunities that are available. Volunteers can be recruited locally, regionally or even nationwide through the use of fliers, short brochures, or PSAs. Typical programs for volunteers include campground hosts, visitor information specialists, and short term group projects.

Community social service agencies, school groups and scouting organizations are excellent sources of work forces for short term projects. Outfitters and private groups could be encouraged to adopt-a-site each river season. They could be made responsible for cleanup and monitoring of a particular beach, recreation site or campground. BLM staff would be made responsible for coordinating efforts, assigning projects and follow up. Small forms of public

recognition and awards given to volunteers is always appreciated. Involving local groups and citizens in BLM activities enhances agency image and helps promote land use ethics. Research has shown that role playing and group dynamics techniques can be an effective way of changing attitude and influencing behavior. However it should be remembered, volunteer programs require coordination time and effort on the part of agency staff and must be well planned and implemented to insure success.

Radio and Television:

An excellent interpretive opportunity that is often disregarded is the use of electronic media. Local radio stations must offer air time to public service organizations. One minute or thirty second spots could be written on a variety of subjects. These "Interpretive Minutes" could be utilized to spread the word concerning minimum impact use techniques, resource management problems/solutions or simply enlighten the listening public to interesting facts about the LSR area or region. BLM staff would be required to write and perhaps deliver these announcements but the potential for influencing attitudes of greater numbers of area residents may be worth the effort. It should be offered on a regular basis through out the year and deal with seasonally appropriate topics. Existing "credible sources", such as local radio personalities or commentators (ie Gene Hamblin of KORT) should be encouraged to discuss BLM issues and concerns.

The power of television is rarely utilized by federal land management agencies. Many local/regional news stations actively pursue land use, outdoor recreation and public safety topics. Short segments could be developed on impact problems, river safety precautions, and other outdoor recreation opportunities subjects. Local stations should be contacted with well thought out and researched topics in hand. Vague and undefined ideas will receive little enthusiasm on the part of news room staff. Many stations now already have "Outdoor Specialists" or regular recreation segments that BLM's public relations/information efforts may easily fit into. It may also be possible to approach human interest programs (such as the local "P.M. Magazine") and solicit their filming of river use, opportunities, safety and impact segments.

The Cottonwood Resource Area has already produced one video concerning minimum impact river camping techniques. Additional videos could be produced concerning other minimum impact or no trace use techniques in conjunction with other agencies. Such videos could be distributed to organizations, sporting goods stores, visitor information centers and other locations where visitors may have the opportunity to view them.

Staff Training and personal contact:

Both seasonal, volunteer, and permanent staff should be fully aware of their public relations and interpretive roles and profiles. Actions of personnel should correspond with stated management objectives and topics practices. Seasonal field river staff should be familiar with the resource and various interpretive topics. Formal and programmed staff training trips into the resource should be a required of all staff periodically and new

staff as soon as it is practical. If staff and volunteers do not know or experience the resource directly, it is impossible for them to relate its significance to the public.

Seasonal staff should be prepared to deliver interpretive presentations on several topics and should make their availability known to visiting groups and individuals. Seasonal staff should be required to make personal contact with parties encountered on the river or along the road corridor. Non-threatening and cooperative personal contact is one of the most effective interpretive techniques available and should be utilized to its fullest. Informed and aware personnel are integral to the success of public relations and interpretive programs. In the eyes of the public each individual staff member is representative of the agency as a whole.

The Cottonwood BLM office should enlarge or rearrange their visitor reception area. Additional visitor information such as recreation opportunity maps, area photos, expanded cultural exhibits should be incorporated in any expansion plans.

Inter-agency cooperation and information clearing-house:

Management should seek out already existing information, printed or otherwise, that relates to the LSR resource. It may be possible to utilize materials or publications that other agencies currently produce in the LSR area. An inter-agency information clearing house could be established that would discourage information duplicity, redundancy, and discrepancy while encouraging uniformity in message content and helping to coordinate interpretive strategies. By having agencies coordinate their efforts, messages would seem less contradictory and confusing to the audiences. For instance, reducing confusion over rules and regulations concerning minimum impact camping techniques would also reduce the number of inadvertent or unintentional acts that degrade the resource.

An inter-agency committee could be established that would compile data and materials and set general uniform guidelines for shared resource management concerns. These guidelines could include the establishment of uniform outdoor recreation symbolism, minimum impact use techniques, cultural resource protection, etc...(Mertes et al., 1979). Much of the information relating to use in the LSR area is applicable in other outdoor recreation areas as well. Large scale information campaigns could also be developed which would address problems shared by numerous agencies and resources. The costs of such programs could be shared as well. The clearing-house approach could reduce administrative and development costs on a variety of resource related public information materials.

IMPLEMENTATION

The interpretive plan implementation strategy is prioritized into three phases to be accomplished over the next 10 years. Prioritization is based on current resource needs and demands, with initial emphasis placed on addressing critical resource management problems such as minimum impact use recommendations, conflict mitigation, and visitor safety and orientation. Second and third phases involve visitor experience enhancement interpretive projects and the more complex or expensive developments and programs. As always, budget limitations and inadequate staffing may preclude the plan's suggested implementation timetable. However, the logical phases of implementation and development should be followed when possible to insure a proper sequence of management actions (Bradley, 1982).

Exact text wording, site development plans, and coordination of media prescriptions will be accomplished between August 1987 and May 1988. All interpretive text, information, and theme design and content should adhere to standard topics guidelines and principles such as relevance, brevity, and clarity (Tilden, 1977). On-site facility/sign design should consider vandal resistant construction as well as low cost maintenance features (Harrison, 1982).

An overview of the implementation schedule, budgetary requirements, program costs and personnel needs are estimated for each phase and are located on the implementation schedule and budget analysis tables. Many programmatic recommendations made in the initial phases are intended to be ongoing, occurring annually or continuously at other seasonal or specified intervals.

Initial plan implementation should also include the collection of necessary baseline data from which to evaluate interpretive program effectiveness. Without the necessary baseline data it will be extremely difficult to accurately evaluate the program's effectiveness.

It must be emphasized, however, to fully implement a comprehensive interpretive effort additional staffing will be necessary. Existing staff cannot and should not be held responsible for coordinating resource wide interpretive projects or designing and implementing extensive visitor information and education campaigns. Nor can they be expected to prioritize interpretive concerns over their existing responsibilities and duties. There is a need for a WAE or permanent position which could effectively design, coordinate and implement the strategies and programs recommended in the plan. The position could also be designed to fulfill, in part, seasonal river recreation technician duties as well as administrative and area public relations responsibilities. Some technical assistance can be arranged through the state public affairs office on aspects of individual projects but state personnel can not be relied upon to develop and implement entire programs. Without adequate staffing the interpretive plan becomes a token effort at best, marginally effective due to sporadic and piecemeal application, implementation and follow through.

Phase I 1988-1991:

Phase I efforts will reflect an attempt to work with existing staff and equipment and utilize public service, volunteer assistance as well as free or inexpensive forms of written and electronic media. On-site developments during Phase I will concentrate on recreation resource management problems and be limited to small scale signs, posters and information boards. The off-site effort will be emphasized as they are potentially more effective and require less expense.

--Information kiosks and visitor information and orientation signs/maps placed at:

Vinegar/Carey Creek; Spring Bar; Shorts Bar; Riggins Park; Lucile Boat Ramp; Slate Creek Rest Area; Skookumchuck; Hammer Creek; Pine (and Taylor) Bar. Specific site development recommendations outlined in the media prescription section can be referred to for actual on-site improvements and interpretive materials.

--Publications:

Cultural resources protection brochure; cultural resources information pamphlet; develop a section of LSR material for the Hells Canyon newsletter; human waste facts sheet; use statistics update; river users information newsletter; general minimum impact use guidelines (standardized for area type); anadromous fish resources information pamphlet; begin text additions for revised river guide.

--Conducted activities and presentations:

Continue annual outfitter interpretive trip; training presentations for area information specialists; conduct river safety and impact seminar in conjunction with USFS annually for area residents/recreationists; approach local schools with list of possible presentation topics and possibilities; approach various user or special interest groups on speaking/presentation opportunities; the area office may wish to offer a winter "lecture series" at which resident expert staff may present a variety of topics for the general public.

--Special events:

The BLM should become actively involved in local festivities and special events. Involvement could range from giving away litter bags to operating an information booth during local "Border Days or Buggy Whip Days". The BLM may also wish to get more public relations visibility at annual jetboat races by operating a information booth or manning a traveling river information display. The BLM may wish to coordinate special events such as a "Steelhead fishing clinic" presented in conjunction with local sporting good stores and fishing tackle representatives. Responsible use ethics and techniques could be covered during the "clinic". Other special events may include the "Lower Salmon River appreciation day" or an organized clean up day or weekend for local volunteers.

--Electronic media:

Electronic media may present the greatest off-site potential in communicating messages to regional recreationists and residents. A major project should be initiated in Phase I that develops interpretive messages for use on local radio stations.

"Interpretive Minutes or News you can use" segments could be written and designed for intermittent use by the stations (these could be PSAs or sponsored by area businesses). Regional television news stations could be encouraged to film informational segments and voice resource concerns.

--Articles and information in local and regional publications:

Cooperate with USFS interpretive efforts and recreational opportunity publications in both the Nez Perce N.F. and Hells Canyon NRA. Contact and encourage a variety of publications to carry resource and interpretive articles or ads. Local outdoor writers should be encouraged to do pieces on the LSR including resource protection efforts. Standard (seasonal etc...) and regular use of newspaper PSAs, articles submitted by area staff and state public affairs. Fishing organizations, outdoor clubs, equipment catalogues, regional and special interest magazines could have resource oriented articles submitted to them for inclusion in their publications.

--Exhibits, facilities, and visitor centers:

There are no major visitor facilities or centers planned for Phase I or II. However, the visitor contact area, exhibits and information at the Cottonwood headquarters should be improved and some remodeling may be necessary. In addition, a slide/tape program and a traveling exhibit could be developed as a University of Idaho interpretive course project. Such an exhibit could travel from school to school or to special events or locations as a public relations effort.

--Theme posters and signs:

Effective use of activity or site specific theme posters and resource facts and figure sheets has been documented (Freed in Fritschen, 1984). Select non-condescending information designed to encourage appropriate behavior concerning minimum impact topics, conflict mitigation, river safety precautions etc... These posters and information sheets should be placed in prominent locations at high density use sites, on information boards, at access points and within restroom facilities. Specific posters should include anti-littering and vandalism, social impact and conflict issues, cultural resource protection, human waste problem/solutions, fire dangers, and safety precaution messages. If posters are designed for general use and distribution, the BLM state office or other districts may be interested in shareing poster development costs.

--Volunteer and cooperative projects:

Cooperation of local groups for clean up and maintenance projects should be solicited. Scouting and youth organizations should be encouraged to work on independent clean up projects; outfitters could be encouraged to "adopt-a-site" for regular clean-up, maintenance and monitoring; BLM staff should use community service workers/students when possible in doing resource work related tasks; local service businesses (sporting goods retailers, restaurants, hotels etc...) should be contacted to carry area visitor information/orientation etc... and maintain the information displays; local supermarkets could be approached to sponsor radio or newspaper ads supporting LSR management objectives, they could also print interpretive messages on shopping bags; local chambers of commerce could be encouraged to maintain visitor information signboards or conduct river clean up or awareness campaigns and appreciation days.

--Direct mailings and newsletters:

A letter describing management concerns and soliciting input on mitigating measures should be sent to registered jetboat owners and power boat club members. The LSR should begin to develop recreation user and resource user mailing lists on which to base direct mailings used in public relations efforts. A new river user self-registration permit should be designed which collects address information. In addition, the addresses of any inquiries for resource information should be routinely collected on a master mailing list. Such a mailing list could be utilized for an annual newsletter which would inform LSR area users of management issues, facility improvements, river flow statistics and projections, special events, annual use statistics, and visitor safety information among other items of interest and public relations.

--Needed research and data collection:

The evaluation section of this plan makes several research recommendations concerning the interpretive plan's effectiveness and the continued collection of user data.

Phase II 1992-1995:

Phase I projects will continue to be reviewed and maintained. Existing effective programs will be continued on a regular basis. It is recommended that an Interpretive and Public Relations Specialist be brought on board by the end of Phase I. This position could be designed to fully implement, monitor, and evaluate recommended programs as well as serve as the area's public relations person and conduct on river contact and ranger duties in a permanent capacity or as a WAE position. The position could also incorporate planning duties for Phase III. Volunteers may be solicited especially in visitor contact or campground host capacities. Seasonal employees will be trained and work toward visitor contact interpretive priorities.

Budget requirements will involve the position described above and general maintenance of sites as well as providing necessary groundwork for Phase III physical developments. This would include possible self-guided trails and a visitor center as well as resource specific publications such as a revised and expanded version of the river guide. Phase II developments should also include the addition of professionally done permanent orientation maps and standardized site signs that are vandal resistant and require low maintenance. The program could begin to emphasize its role as an innovative BLM program as well as an example of BLM's efforts in enhancing recreation resources. Coordination of interpretive messages and programs statewide with both state and federal land management and recreation agencies should be actively pursued. Special funds and grants should be explored for phase III developments such as the major visitor center and museum at Skookumchuck.

Phase III 1995-1999:

A major interpretive facility would be developed at Skookumchuck and staffed with volunteer hosts. The expansion of existing exhibits and visitor contact facilities at heavily visited sites should be considered. The development of traveling displays or exhibits, especially for school groups or use at special events or presentations should be accomplished. Self-guided trails are also fully developed and accessible at Slate Creek, Skookumchuck and Hammer Creek. BLM state office level interpretive specialist or recreation information specialist should be on board in the state or district office to coordinate state (or district) wide efforts. Skookumchuck site should be completely developed for visitor center/museum and staffed with seasonal volunteers. Lucile Caves Ecological site developed with self-guided trail and parking/restroom facilities. Additional interpretive waysides and resource educational signs should be implemented. These signs could emphasize the more non-management oriented aspects of the interpretive program such as natural and cultural history.

On-going Phase I and II programs should be monitored for effectiveness through peer and expert review or by university research. Planning efforts for the next ten year period should be implemented.

EVALUATION AND MONITORING OF INTERPRETIVE PROGRAMS AND PROJECTS

Without the establishment of clear evaluative criteria and careful monitoring it becomes difficult to access the interpretive plan's and program's effectiveness and hence impossible to justify its existence. Interpretive master plans should be considered dynamic and must be designed to be flexible enough to meet the changes in needs, demands and requirements of the resource and its users. The plan should set a definite timetable for review, evaluation and up-dating. It is recommended that the interpretive plan be reviewed at the end of each implementation phase and a new plan should be issued at the end of the plan's Phase III implementation period (1999).

The plan's implementation process should be monitored biannually and the program's effectiveness evaluated annually. Implementation can be monitored by the responsible staff member and a report on the interpretive program's progress issued twice a year to the area manager. The implementation timetable should be used to determine chronological progress. Periodic updating and revision may be necessary to insure that the plan meets its stated performance objectives.

There are several suggested methods of evaluating interpretive programs. Most of the published techniques involve evaluation of conducted or manned activities (Machlis, 1986). Due to the lack of such programs within the LSR, other, more appropriate, social science evaluation methods can be utilized (Ham, 1986). Such applicable techniques include the use of visitor questionnaires, peer or expert review, formal/informal user/visitor interviews, behavior observation, suggestion boxes, and actual measurable changes in environmental and social recreation impacts/conflicts. If used individually the methods fall short in providing insight into the effectiveness of the program. Only when a variety of techniques are used collectively can an accurate picture of the interpretive program's effectiveness be determined.

Pre-implementation data is absolutely necessary for establishing a baseline from which to judge the program's value and effectiveness. Much of the wild and scenic river study (1979 & 1981) of user concerns and interests may be useful in establishing a workable baseline. However, initial plan implementation should include the additional collection of information and accurate determination of baseline data. Performance objectives stated in the goals and objectives sections could be further refined to reflect more measurable criteria. For instance human waste impacts on the river below Hammer Creek should be reduced by 30% after five years, or reported accidents decreased by 20% (in proportion to use) after three years. Unfortunately, the sheer number of possible variables affecting change in visitor behavior, impacts, and interests makes evaluation difficult. It is also very hard to attribute the cause of a particular change to any single effort by management.

The plan should be reviewed for consistency, appropriateness, accuracy and detail (Briggle, 1986; Kryston, 1986). It was recommended that a draft version of the plan itself be reviewed by the planning team consisting of experts from the University of Idaho, the area recreation planner, the Cottonwood Resource Area manager as well as wildlife and cultural resources personnel. This was conducted in early 1988 and input and suggestions were then incorporated into this final version of the plan. Any additional recommendations can be added to the appendix.

Existing accurate impact, safety and conflict data need to be consolidated and current maintenance costs estimated. Accurate changes in visitor impacts can be assessed by using the existing campsite monitoring system. Reported numbers of conflicts, accidents, or resource damage can also reflect the program's effectiveness. However, changes in visitor numbers and use patterns must be taken into account as extenuating variables.

Suggestion boxes should be set up at major visitation sites and public comment on interpretive activities can be solicited. Graduate students and seasonal rangers can randomly select users and have them fill out specific interpretive questionnaires which can be designed to measure knowledge concerning minimum impact use techniques, resource management problems or awareness of BLM policies/lands etc... Ideally such information should be collected before Phase I is implemented and subsequently after each Phase has been fully operational for a given period of time.

Graduate students, volunteers and seasonal rangers could also unobtrusively observe user behavior and record information in a standardized format. Informal interviews are also an excellent way to gain the views and opinions of area users and recreationists. A select number of informal questions could be designed and responses could be systematically collected on a random basis by students, area personnel and local visitor information specialists.

Finally, the program can be reviewed by interpretive specialists from within the BLM and other federal or state resource management agencies and universities. Their comments and suggestions can be incorporated in subsequent phases or plan revisions.

BUDGET AND FUNDING REQUIREMENTS
(estimated costs of personnel, man-hours and materials)

MANAGEMENT ACTIONS	PHASE I 1988-1991	PHASE II 1992-1995	PHASE III 1996-1999
On-site developments			
new information boards	2,500	2,500	2,200
improvements to existing kiosks/boards	1,000	250	300
permanent visitor orientation maps	750	1,200	1,500
warning/hazard signs	750	300	200
wayside signs/exhibits		2,000	3,000
self-guided trails		3,500	32,000
interpretive center and museum facilities	500	14,000	185,000
Off-site operations			
Publications:			
river guide/primer		7,500	
annual river newsletter	300	500	500
brochures	1,500	1,500	1,750
fliers/fact sheets	250	100	250
posters	500	250	100
direct mailings	300	600	800
Presentations or conducted activities:			
community lectures	600	800	1,000
LSR slide/tape show	500	200	100
traveling exhibit		1,500	600
outfitter interp. trip	900	1,200	1,500
staff interp. training	600	800	2,000
annual clean-up trip	1,200	900	1,000
Special Events:			
LSR appreciation days	1,200	1,200	1,500
fishing clinic	2,000	1,000	1,200
representation at local events	300	300	500
Personnel:			
volunteers	500	900	1,200
seasonal	8,000	12,000	6,000
permanent		30,000	75,000
Radio/TV/Video	1,000	1,000	1,200
Interagency Information Clearinghouse	500		
TOTALS	25,150	90,200	320,100

[illegible]

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Creek	Headquarters	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Skookumchuck	Sk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Media	INFORMATION BOARD										POSTERS				WAYSIDE SIGNS/EXHIBITS										MAJOR DEVELOPMENTS								
	AND KIOSKS														Orientation Maps				Interpretive						Interp. Trail			Museum			Visitor Center		
	Spring Bar or	Shorts Bar	Riggins	Jacksass Flats or Lucile	Slate Creek	Skookumchuck	Hammer Creek	Graves Creek	Eagle Creek		Litter	Hazard or Warning	Fishing	Cultural	Riggins	Skookumchuck	Hammer Creek	Graves Creek	Headquarters	Grangeville	Geology	Mining	CCC	Flora	River	Cultural	Lucile	Skookumchuck	Hammer Creek	Headquarters	Skookumchuck		
I.A.	X	X	X	X	X	X	X	X	X	X	X	X												X			X					X	
B.	X	X	X	X	X	X	X	X	X	X	X	X																				X	
C.	X	X	X	X	X	X	X	X	X						X	X	X	X	X													X	
D.	X	X	X			X	X	X	X	X		X		X										X			X	X				X	
E.																																X	
F.																																X	
II.A		X	X			X	X	X	X				X													X						X	
B.		X	X			X	X	X	X				X													X						X	
III.A.	X	X	X	X	X	X	X	X	X		X				X	X	X	X	X													X	
B.	X	X	X	X	X	X	X	X	X	X	X																					X	

REFERENCES AND BIBLIOGRAPHY

- Beechel, Jacque. 1975. Interpretation for handicapped persons. *Journal of Environmental Education*, 6(4):34-44.
- Biggs, C.C. & Roth, C.Z. 1986. Interpreting the river resource. *Journal of Interpretation*, 11(2):49-56.
- Bultena G., Donald Field & R. Renninger. 1977. Interpretation for the elderly: A study of the interpretive interests of retired national park goers. In *Proceedings of the Annual Workshop of the Association of Interpretive Naturalists*, April, Texas A&M University, College Station, TX.
- Bureau of Land Management. 1985, November 4. Briefing paper on recreation management program. Colorado: BLM.
- Burford, Robert F. 1985. BLM wilderness -- "The new kid". Pp. 24-28, in *Issues in Wilderness Management*, Michael Frome (ed.), Boulder: Westview Press.
- Boulanger, David F. & John P. Smith. 1973. Educational principles and techniques for interpreters. USDA Forest Service Gen. Tech Report PNW-9, Pacific Northwest Forest and Range Experiment Station, Portland, OR.
- Bradley, Gordon A. 1982. The interpretive plan. In *Interpreting the environment* (Grant Sharpe, ed) 2nd ed. New York: John Wiley & Sons Inc.
- Braley, M. & John Hanna. 1980. The use of interpretation as a management tool. Pp. 88-92, in *Program Papers: Association of Interpretive Naturalists National Workshop*, October, Cape Cod, MA.
- Briggle, William J. 1986. How should interpretation be evaluated? A management perspective. Pp. 85-88, in *Interpretive Views*, (G.E. Machlis, ed.), Washington, D.C.: National Parks and Conservation Assc.
- Brown, William E. 1971. *Islands of hope*. Arlington, VA.: National Recreation and Park Assc.
- Cable, T.T., Knudson, D.M., Udd, E. & Stewart, D.J. 1987. Attitude change as a result of exposure to interpretive messages. *Journal of Parks and Recreation Administration*, 5(1):47-60.

- Cherem, Gabriel. 1984. In Fritschen, Janet A., Interpretation for management. Pp. 135-168 in Supplements to a guide to cultural and environmental interpretation in the U.S. Army Corps of Engineers. Instruction Report R-84-1, U.S. Army Engineers Waterways Experiment Station, Vicksburg, Miss.
- Christensen, Harriet H., and Roger N. Clark. 1983. Increasing public involvement to reduce depreciative behavior in recreation settings. *Leisure Sciences* 5(4): 359-379.
- Cockrell, David, Steve Bange and Joseph Roggenbuck. 1984. Persuasion and normative influence in commercial river recreation. *Journal of Environmental Education* 15(4): 20-26.
- Cockrell, D. & McLaughlin, W.J. 1981. Social influences on wild river recreationists. In *Forest and River Recreation: Research Update*. University of Minnesota Agricultural Experiment Station Misc. Publication #18. St. Paul. pp. 140-144.
- Cordell, H. Ken & John C. Hendee. 1982. Renewable resources recreation in the United States: Supply, demand, and critical policy issues. Washington, D.C.: American Forestry Association.
- Dorman, Phyllis & Joseph Fridgen. 1981. Evaluation of an off-road vehicle information and education program. Pp. 33-37, in *Forest and River Recreation Research Update*, Misc. Publication 18-1982, the Agricultural Experiment Station, St. Paul: University of Minnesota.
- Dustin, Daniel L. 1986, October. To feed or not to feed the bears: the moral choices we make. *Parks and Recreation*: 54-57, 72.
- Enriquez, Jamie. 1987. A proposed methodology for interpretive planning in the national parks and similar areas of Ecuador. Professional paper, Dept. Wildland Recreation Management, University of Idaho: Moscow.
- Fazio, James R., and Douglas L Gilbert. 1986. Public relations and communications for natural resource managers. Dubuque: Kendall/Hunt Publishing Company.
- Fazio, J.R. 1979. Agency literature as an aid to wilderness management. *Journal of Forestry*, 77: 97-98.
- Fazio, J.R. 1979. Communicating with the wilderness user. Bulletin Number 28. 65pp. University of Idaho, Forest, Wildlife and Range Experiment Station: Moscow.

- Field, Donald E. & J. Alan Wagar. 1973. Visitor groups and interpretation in parks and other outdoor leisure settings. *Journal of Environmental Education*, 5(1):12-17.
- Fishbein, M. 1980. A theory of reasoned action: Some applications and implications. In the Nebraska Symposium on Motivation, H.E. Howe (ed.), pp. 65-115. Lincoln: University of Nebraska.
- Freed, Michael & B. Stenman. 1980. Interpretation for resource management. *The Interpreter*, 11(4):27-30.
- Freed, Michael. 1981. In Fritschen, Janet A. 1984. Interpretation for management. Pp. 135-168 in Supplements to a guide to cultural and environmental interpretation in the U.S. Army Corps of Engineers. Instruction Report R-84-1, U.S. Army Engineers Waterways Experiment Station, Vicksburg, Miss.
- Graefe, Alan R., Fred R. Kuss, & Jerry J. Vaske. 1987. Recreation impacts and carrying capacity: A visitor impact management framework (review draft). Washington, D.C.: National Parks and Conservation Association.
- Griest, Debra L. & Gary W. Mullins. 1984. Managing conflict: A process for increasing use of interpretation as a management tool. *Journal of Interpretation*, 9(1):19-32.
- Gebler, Charles. 1982 Off-season, off-site interpretation. In *Interpreting the environment* (Grant Sharpe, ed.), 2nd ed. New York: John Wiley & Sons Inc.
- Ham, Sam H. 1986. Evaluation and interpretation: A Literature review. Pp. 9-40, in *Interpretive Views*, (G.E. Machlis ed.), Washington, D.C.: National Parks and Conservation Assc.
- Ham, Sam H. 1983. Cognitive psychology and interpretation: synthesis and application. *Journal of Interpretation* 8(1): 11-27.
- Hanna, John W. 1980. Interpretive operations planning. *Journal of interpretation* 5(2): 11-16.
- Harrison, Anne. 1977. Getting your story across -- interpreting the river resource. In USDA Forest Service General Tech. Report NC-28, pp. 125-138. North Central Forest Experiment Station, St. Paul, Minnesota.
- Harrison, Anne. 1976. Problems: Vandalism and depreciative behavior. Pp. 473-498, in *Interpreting the Environment*, Grant W. Sharpe (ed.), New York: John Wiley & Sons, Inc.

- Hodgson, Ronald W. 1984. Goal analysis and performance objectives. In Supplements to a guide to cultural and environmental interpretation in the U.S. Army Corps of Engineers. Instruction Report R-84-1, U.S. Army Engineers Experiment Station, Vicksburg, MS.
- Hunt, John. 1979. Interpretation: a crucial factor in agency image. *Journal of Interpretation* 4(1): 21-23.
- Kelly, Joyce. 1984. The Bureau of Land Management's perspectives on river recreation. In *The Proceedings of the 1984 National River Recreation Symposium*, (Popadic, Butterfield, Anderson, & Popadic eds.), October 31-November 3, Baton Rouge, LA.
- Kryston, Cynthia E. 1986. How should interpretation be evaluated? A personal perspective. Pp. 89-94, in *Interpretive Views*, (G.E. Machlis ed.), Washington, D.C.: National Parks and Conservation Assc.
- Lewis, William J. 1980. *Interpreting for park visitors*. Eastern Acorn Press.
- Lime, D.W. 1986. River recreation and natural resource management: A focus on river running and boating. In the *Literature Review for the President's Commission on Americans Outdoors*, pp. management 137-150. Washington D.C.
- Lime, D.W. 1984. Who uses rivers for recreation and what of the future? In *Proceedings of the 1984 National River Recreation Symposium*, pp. 15-26. Baton-Rouge, LA.
- Lime, D.W. 1979. Managing visitor use on whitewater rivers. *Trends*, 16(22): 24-27.
- Lime, D.W. & Lucas, R.L. 1977. Good information improves the wilderness experience. *Naturalist*, 28(4): 18-21.
- Lovelock, C.H. & Weinberg, C.B. 1984. *Marketing for public and nonprofit managers*. New York: John Wiley & Sons.
- Lucas, R.C. 1982. Recreation regulations: When are they needed? *Journal of Forestry*, 80(3):148-151.
- Machlis, Gary E. 1986. *Interpretive Views*. Washington, D.C.: National Parks and Conservation Assc.
- Machlis, Gary E. & Maureen McDonough. 1978. *Children's interpretation: A discovery book for interpreters*. Seattle: University of Washington Cooperative Park Studies Unit.

- McAvoy, Leo H. 1985. Visitor control methods. In The management of human behavior in outdoor recreation settings (Daniel L. Dustin ed.), San Diego, CA.:San Diego State University's Institute for Leisure Behavior.
- McAvoy, L.H. & Hamborg, R. 1984. Wilderness visitor knowledge of regulations: A comparison of visitor contact methods. *Journal of Interpretation*, 9(1):1-10.
- McAvoy, Leo H. and Daniel L. Dustin. 1983. Indirect versus direct regulation of recreation behavior. *Journal of Parks and Recreation Administration*, 1(4): 12-17.
- McDonough, M.H. 1986. Communication channels in recreation research. In the Literature Review for the President's Commission on Americans Outdoors, pp. information 35-43. Washington D.C.
- Mertes, J.D., Glick, A.N. & W. Bell. 1979, August. A solution to recreation and resource management in remote areas. *Parks and Recreation*, pp. 27-32.
- Mullins, Gary W. 1984. The changing role of the interpreter. *Journal of Environmental Education*, 15(4): 1-6.
- Oliver, S.S., Roggenbuck, J.W. & Watson, A.E. 1985. Education to reduce impacts in forest campgrounds. *Journal of Forestry*, 83(4):234-236.
- Olson, E.C., Mary L. Bowman, & Robert E. Roth. 1984. Interpretation and nonformal environmental education in natural resources management. *Journal of Environmental Education*, 15(2): 6-10.
- Propst, D.B., J.H. Schomaker & J.E. Mitchell. 1977. Attitudes of Idaho off-road vehicle users and managers. Bulletin 23, Forest, Wildlife and Range Experiment Station, University of Idaho, Moscow.
- Robertson, R.D. 1982. Visitor knowledge affects visitor behavior. In *Forest and River Recreation: Research Update*. University of Minnesota Agricultural Experiment Station Misc. Publication #18. St. Paul. pp. 49-51.
- Roggenbuck, J.W. 1977, April. The relationship between trip motives of whitewater river users and preferences for environmental interpretive programs. Paper presented at the Association of Interpretive Naturalists' Workshop, Texas A&M University.
- Roggenbuck, Joseph. 1981. A handbook on interpretive master planning. Blacksburg: Department of Forestry, Virginia Polytechnic Institute.

- Roggenbuck, Joseph & D.B. Propst. 1981. Evaluation of interpretation. *Journal of Interpretation* 6(1):13-23.
- Roggenbuck, Joseph and Janet Akers Fritschen. 1984. Interpretation planning. In *Supplements to a guide to cultural and environmental interpretation in the U.S. Army Corps of Engineers. Instruction Report R-84-1, U.S. Army Engineers Waterways Experiment Station, Vicksburg, MS.*
- Roggenbuck, J.W. & Ham S.H. 1986. The use of information and education in recreation management. In *the Literature Review for the President's Commission on Americans Outdoors*, pp. management 59-71. Washington D.C.
- Ross, Terence L. & George H. Moeller. 1974. Communicating rules in recreation areas. *USDA Forest Service Research Paper NE-297, Northeastern Forest Experiment Station, Upper Darby, PA.*
- Roth, Carolyn Z. 1984. Interpreting the river resource. In *Proceedings of the 1984 National Rivers Recreation Symposium, (Popadic, Butterfield, Anderson, & Popadic eds.)*, October 31-November 3, Baton Rouge, LA.
- Roth, Carolyn Z. 1978. Interpretation for management effectiveness. In *Proceedings of the 1978 Conference of the Association of Interpretive Naturalists, April 5-7, Tuscon, AZ.*
- Shelby, B. & Lime, D.W. 1986. Whitewater river recreation. In *the Literature Review for the President's Commission on Americans Outdoors*, pp. activities 91-97. Washington D.C.
- Stynes, D.J. 1986. Consumer information and recreation choice. In *the Literature Review for the President's Commission on Americans Outdoors*, pp. information 1-13. Washington D.C.
- Stynes, D.J. 1982. The role of information in recreationsite selection. In *Forest and River Recreation: Research Update. University of Minnisota Agricultural Experiment Station Misc. Publication #18. St. Paul. pp. 100-104.*
- Veverka, John A., Sandra A. Poneleit & David E. Traweek. 1979. Standardized planning forms for the development of interpretive planning documents. *Journal of Interpretation*, 4(2):20-36.
- Wadzinski, Lester. 1984. Water safety wows -- an example of a way to insure your interpretive future by helping your agency meet its management objective. Pp. 108-112, in *Proceedinngs of the 1984 Workshop of the Association of Interpretive Naturalists, March 4-8, Pine Mountain, GA.*

Wilkinson, Charles F. 1987. The end of multiple use. In High Country News, March 30, 1987, Paonia, CO.

Zimbardo, Philip G., Ebbe B. Ebbesen & Christina Maslach. 1977. Influencing attitudes and changing behavior. Menlo Park, CA.: Addison-Wesley Publishing Company.

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